NATIONAL PETROLEUM NEWS

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Institute Called on to Bring About Regulation of Production

CLEVELAND, Nov. 29

THE duty is now on the petroleum industry, and particularly the American Petroleum Institute to work out, if possible, a practicable plan for conservation of petroleum resources and products, declares Mark L. Requa, who was in charge of petroleum for the government during the war, in a statement issued from San Francisco this week, prior to the opening of the Institute's sessions at Tulsa next week.

Mr. Requa says both the government, as represented by the Oil Conservation Board, and the oil industry, as stated by the Institute and the Committee of Eleven, are in agreement that cooperative regulation of oil operations by the industry itself, is the next move. He calls on the institute to appoint a special committee to get busy on the subject, warning that if there is delay the matter will be taken out of the industry's hands.

Mr. Requa urges the reelection of W. S. Farish as president of the institute for a second term and that he be specially charged with trying to bring about a practicable solution of the problem.

* * * *

REVIEW By M. L. REQUA

In the light of the Federal Oil Conservation Board Report

THE report of the Federal Oil Conservation Board to the President of the United States has definitely ended the long standing conservation controversy. The whole subject of petroleum conservation has been exhaustively debated before the board, questionnaires have been answered, briefs have been filed; the Committee of Eleven of the American Petroleum Institute has printed, in book form, the result of its research, the famous summary of conclusions has been duly discredited, the smoke has cleared away and the answer has been given. The sequence of events was, of course, as inevitable as sunrise; the only wonder is that any intelligent members of the industry could delude themselves into believing it could be averted, sidetracked, or smothered. There isn't anything equivocal about that answer. It's clean cut and forceful and can be understood by any one not hopelessly biased. Briefly the board has found that conservation of our petroleum resources is necessary. The question now at issue is, how shall that conservation be brought about?

Men Generally Conservative

THE reaction of the industry to the report is a curious commentary on human nature. Man is, after all, a good deal of a conservative. He likes to stick to old methods and old theories. The older industrialists, with but few exceptions, are reactionary. Reform never started at the top, revolution never originated with the "malefactors of great wealth" and the aspirations of the masses have never been made articulate by national, or international, banking houses.

All of which is, perhaps, an explanation of the attitude to the report of (shall we say) x+y%+ of the petroleum industry. I suspect if the truth were known that attitude might be summed up like this: That's another government investigation past and done with. It will soon be forgotten. It's annoying, of course, but after all it's part of the day's work, and now it's over with.

But is it past and done with? I venture to answer no, not because of any personal bias, but purely because, as a student of industrial evolution, the trend of events seems so absurdly simple as to leave little chance for successful argument.

The End Is Not Yet

AND I am particularly strong in the belief that the end is not yet, for the reason that the industry has furnished the facts from which the inevitable conclusion has been deduced that conservation is necessary. Any one reading carefully and intelligently the book, American Petroleum Supply and Demand, could have unerringly forecasted the tenor of the report of the Federal Oil Conservation Board.

The wonder is that anybody should have thought the report could have been otherwise.

It may be worth while to summarize the facts presented in the book and to consider the report of the board in the light of those facts.

Briefly then the book gives our known oil reserves as equal to about a six years' supply, the area of known oil land as 3,244,581 acres; it points out the overpowering importance of flush production; it speaks of a billion acres of sedimentary rocks, but says only a very small portion of this area will ever produce oil in commercial quantities; it hangs future hope for an indefinite future supply on improved methods of recovering more oil from sands heretofore thought exhausted; in unknown degree from new fields and finally in treating shale and coal, and making available alcohol and other substitutes and speaks hopefully of foreign sources of supply; but all without any consideration of price. Verily the small boy walking through the graveyard and whistling to keep up his courage had nothing on the Committee of Eleven.

The book is an encyclopedia of petroleum facts; the men who com-

piled it are deserving of highest praise for making, on behalf of the industry, a more exhaustive, more authentic, more authoritative presentation than has ever heretofore been attempted. Coming as it does from the industry it of necessity is of more significance than any governmental compilation could be, for the reason that the combined technical staffs of practically all the great oil companies contributed to the presentation.

It is without doubt the most important book on petroleum ever published **and it proves beyond question the necessity of conservation.**

The report of the Federal Oil Conservation Board is equally explicit. Let us see what it says.

On page 5, it states:

There must be natural concern over our future supply of oil because of the manifest dependence of so large a part of our industrial life, national defense, and domestic comfort upon continued adequate supplies of lubricants for all machinery and fuel for automotive engines. Our future resources in coal and iron have been so determined by geological evidence and exploration that we can measure our proved supplies by centuries. But the local character of oil deposits, their geological uncertainty, and the vast amount of unproductive capital required for long advance exploration prevent any such advance proof in the case of oil.

On page 6:

However, this dependence upon fortuitous discovery of new fields renders it imperative that every effort shall be made to secure the maximum amount of oil from the known fields and the most beneficial use of the oil that is produced.

Loss of Natural Gas

On page 7:

THIS waste of natural gas, incident to the past and present methods of capturing oil at the surface, is occasioned by blowing the gas into the air to hasten the flow of oil from the wells. It has been estimated that in the Cushing field in Oklahoma at one period there was an average daily waste of 300,000,000 cubic feet of natural gas, or more than 100,000,000,000 cubic feet in the course of a year, the equivalent of 5,500,000 tons of coal. Vast wastage of gas has occurred at Cromwell, Okla.; Burkburnett, Tex.; and Eldorado and Smackover, Ark.; and at several of the fields in the Los Angeles Basin. The dissipation of this gas by letting the wells produce wide open was a triple waste, containing, as it did, large quantities of casinghead gasoline with the fuel value in addition and being capable of much more effective use for recovering oil from the sands.

Mark L. Requa, head of the petroleum division of the government during the war, who advises the oil industry to find means to regulate production.

On page 8:

As the oil flows into the wells from the sands due to the pressure of natural gas the flush flow is always larger and tends to diminish with the release of gas pressure. The annual production during many years has been sustained by the discovery of sufficient new fields each year to maintain a very large contribution from this flush flow. Therefore, supply equal to our present demands hangs definitely upon the rather precarious basis of repeated new and important discoveries.

On page 9:

But this does not warrant the assumption that the remaining 1,100,000,000 acres of the country, or any large part of them, will be found oil bearing. Considerable portions of this area have already been drilled for oil or water. It is a certainty that we are learning each year more of geologic structure at the hands of a large body of public and private geologists but the percentage of dry holes in new exploration is increasing. To assert that no new fields will be found would be to deny a very strong law of probabilities. And we may conclude that such fields will be found, but obviously no forecast of their importance can be given.

Gasoline and Lubes Essential

On page 10:

THE most essential products from our crude oil are lubricating oil, gasoline, and other oils for internal combustion engines. The other uses for oil could be dispensed with, without an industrial revolution, as other fuels and substitutes could be applied without prohibitive differentials in economic costs. At the present time, about one-half of our crude-oil production is burned either as crude oil or as fuel oil to generate steam and heat—the remainder is used as kerosene, gasoline, lubricating oil, etc.

On page 11:

Due too often to divided ownership in small areas, the drainage of which is threatened by adjacent wells, a rush of drilling leads to enormous flush flows which temporarily glut the market and force much oil into fuel consumption, and, through over-release of the gas, diminish the amount of oil that can be ultimately obtained by flow and pumping.

On page 13:

Of the fundamental conservation measures above mentioned, that of cooperative methods in development of new fields to prevent temporary gluts merits more exhaustive discussion, as it is a promising field for important action by industry and the government.

These quotations clearly show the opinion of the board as to conservation. That it was, and is, the hope of the board that the industry will initiate a movement, having for its objective a well coordinated plan of conservation, is indicated by its suggestion that remedial measures are desirable—perhaps necessary. On this subject the report is explicit. It says:

Remedial Measures Necessary

On page 15:

THE formulation and adoption of remedial measures permitting a better correlation of underground property rights is all the more urgent in view of the present

Coming Meetings

Rocky Mountain Oil & Gas Association, Montana Chapter, Great Falls, Mont., Dec. 1, 2, 3.

American Petroleum Institute, annual meeting, Mayo Hotel, Tulsa, Dec. 7, 8, 9.

Nebraska Independent Oil Men's Association, Hotel Fontennelle, Omaha, Dec. 15, 16.

Wisconsin Independent Oil Jobbers Association, Hotel Pfister, Milwaukee, Jan. 10, 11, 12.

Michigan Independent Oil Men's Association, Detroit, Feb. 10 and 11.

Ohio Petroleum Marketers Association, Neil House, Columbus, O., Feb. 17, 18.

American Oil Men's Association, Congress Hotel, Chicago, March 22, 23, 24.

American Oil Burner Association, Broadway Auditorium, Buffalo, N. Y., Apr. 5, 6, 7.

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intense activity of the engineers in perfecting better methods of oil recovery. In order to accomplish something in relieving the pressure of competition before it is too late, it is suggested that the lawyers familiar with the business of the oil operators take the lead in developing the needed line of action in accord with the discoveries of science and changes in engineering practice.

For present purposes we might define conservation as orderly production under some type of cooperative drilling or production agreement.

The subject of cooperative agreement is commented on in the following language:

On page 15:

> Another avenue of relief is the restriction of development or operation through voluntary agreement of owners. This suggestion is not novel, for it has to a limited extent been tested in actual practice and can be discussed in the light of experience. Agreement between neighboring property owners as to the handling of their common property and the protection of their mutual rights is more and more generally recognized as making for economy in development and efficiency in extraction as compared with competitive drilling. Indeed, operators of experience have expressed to the board the opinion that duplication in drilling and the consequent unnecessary reduction of gas pressure constitute the cause of all waste worth mentioning in the production of oil. The danger that much of the remaining oil will be brought to the surface before either courts or lawmakers can be expected to remedy the situation has also prompted the expression of opinion to the board that voluntary cooperation offers the only practical hope.

Legality Questioned

On page 16:

THE question of the legality of cooperative agreements has been frequently raised in the recent discussion of remedial measures. The uncertainty as to whether the economic betterment through substituting cooperation for competition runs counter to federal and state laws has served as an actual or imagined or pretended barrier to cooperative action and the removal of that legal inhibition is asked, although the suggestion comes from the industry that "to protect the public, approval of such agreement by some commission or board should be required." This doubt should be removed by appropriate legislation.

As to the lack of such cooperation the board comments in part as follows:

On Page 18:

As illustrating the lack of cooperative action, the Santa Fe Springs field of California has been brought to the attention of this board. In this small but highly productive field 45 operating companies competed, drilling more wells than necessary, letting loose an unneeded flood of oil on the market, with resultant disaster to the price structure, and creating conditions of increased operating costs. The total losses attributed to this competitive struggle in a single field are estimated as in excess of $200,000,000, but even greater perhaps than this economic waste involving a loss to the industry, is the loss to the country involved in the dissipation of gas pressure, leaving in the upper sands oil that might well have been recovered to an amount equal to that actually taken out under the rush methods of competitive drilling and producing.

As to the need for cooperation the report says:

On page 20:

> The need of concerted action, whether by state regulation or by voluntary agreement, is now well-nigh universally accepted in any program of rejuvenation of a depleted oil pool, and the application of a similar principle to the conservation of gas pressure in a new oil field as to its restoration in an old field would seem altogether logical and even more desirable.

Agree on Need

FROM the above statements one can readily see that both the industry, through the Committee of Eleven of the American Petroleum Institute, and the government, through the Federal Oil Conservation Board, have arrived at identical conclusions as to the need for conservation, although approaching the problem from somewhat different angles.

The question now before us is how that conservation is to be brought about. It is not a simple problem, in that, to a considerable extent, the interests of the government and the industry seemingly run in opposite directions.

The industry is anxious to produce and market the maximum quantity in minimum time; the government must reckon with conditions not likely to arise for decades, generations and centuries.

Enforcement of either alternative, without consideration of the other, would be unwise, unjustifiable and detrimental to the public welfare. It is the medium between these two extremes that must be found and made effective in the form of a well recognized national petroleum policy.

To begin with government itself should "clean house". In opening the public hearings on Feb. 10, the chairman of the board (Secretary Work) said:

On page 21:

It is unwise to attempt measures for the conservation and orderly development of the oil resources of the country, with mandatory provisions of law forcing a disregard of the best interests of the Indians, the general public, and oil producers, and the oil industry. We have twice asked congress to repeal or modify this statute and to vest discretion and authority in the Department of the Interior.

A Series of Mistakes

ANY one at all familiar with the past activities of government in dealing with the problem of petroleum knows that it has been nothing but a series of mistakes piled one upon another, a tragic indictment of the inability of our republican institutions successfully to cope with modern industrial problems, a pitiful example of ignorant, incapable and vicious political office holders, fearful of possible criticism, deliberately preventing legislation that would permit the industry putting into effect measures that would long ago have made possible rational conservation.

The result of all this has been that the members of the industry want to get as far away from Washington and keep as far away as possible. And for this I should be the last to blame them. But we are dealing with conditions that do not permit such isolation. The alternative, and the only practical one, is education of the public and the congress, so that some intelligence will be in evidence in future when government acts in matters relating to petroleum.

It is generally conceded that the remedies for our troubles are known. Whether government will make possible the application of those remedies is the moot question. It probably won't unless the industry, plus public opinion, forces them to, or, what is worse, until economic pressure becomes unbearable when, unless the industry takes time by the forelock and prepares the program in advance, we shall have a repetition of the same old folly.

No Criticism of Refining Branch

THERE is little to be said in criticism of transportation, or refining. These branches of the industry will care for themselves, for the service must be efficient to survive.

Distribution is endlessly duplicated and government might well permit combinations that would eliminate much of the duplication. The public should, of course, share in the savings to be made; attempt on the part of the industry to absorb the entire profit should, and no doubt would, lead to government intimations hardly possible of being ignored.

To put it bluntly, if undue rapacity is to be the order of the day, government regulation must follow as an inevitable consequence. The public will not long permit unconscionable profits to be collected; gasoline too nearly approaches a public necessity to be han-

dled without regard to the public pocket book. I do not apprehend any such contingency. On the contrary, I have seen ample evidence that controlling factors in the industry are fully alive to the gravity and unwisdom of any such policy.

Largely today the industry is operating without satisfactory profit. To demonstrate the correctness of this statement would require consideration of production costs, storage costs and losses, amortization of investment, the hazards of the industry and an infinite number of factors, the full consideration of which would require an investigation by a large staff running over months of time.

Government Should Clean House

WE can, of course, pick shining examples of large profits, due to lucky strikes, but it is the average of the entire industry that must be considered. If government will "clean house", as above suggested, and permit combinations to reduce marketing costs, there remains but one problem to be solved. That, of course, is the greatest problem of all, the fundamental upon which all else rests—the problem of control of production.

We have gone a long way in the last few years in the coming to an intelligent understanding of the situation. The work of the Committee of Eleven, and of the Federal Oil Conservation Board, has definitely cleared up any lingering doubts. These two groups, one representing government, the other the petroleum industry, have set a mile stone on the industrial highway that marks the breaking with old traditions and the beginning of a new order of things.

We shall, however, be helpless to apply the necessary corrective measures until government acts. Secretary Hoover in a recent interview in Tulsa said:

> An amendment to the Sherman Act permitting oil companies to curtail their drilling activities in small localized fields, which may threaten to upset the conditions of the entire country, seems to be advisable.

Public Sympathy Needed

SUCH a program, however, cannot be successfully put into effect until public opinion is sympathetic. No industry has such ready-made channels of publicity as has the petroleum industry through its filling stations.

Some years ago the Standard of California put on a campaign of education regarding gasoline. Every motorist stopping for gas, or oil, was handed a small leaflet telling the simple fundamentals regarding initial and end points, and what it all meant. The story was brief, to the point, and I have always wondered that there were not many more such educational efforts undertaken. Newspaper advertising is another source of publicity, not to be neglected.

It is coming to be recognized in all lines of production that some rational program of control is desirable and perhaps necessary. In a recent speech before the farmers association of California, George H. Hecke, director of agriculture, California, said that the great problem confronting agriculture in California was over-production. At the same convention C. C. Teague, a leader in the lemon industry, pointed out the triumph of cooperative effort in California during the past season in distributing a 25 per cent excess lemon crop, without a disastrous smash in price, by sending large quantities to by-products factories, and an intensive cooperative marketing effort.

I might call attention to the fact that every lemon raiser does *not* run lemonade stands in every city and at every cross road, in competition with every other lemon raiser. Individuals proposing such action would be considered fit candidates for the lunatic asylum.

The copper industry has an export association, under government rules, that promotes rational marketing and stabilization of prices. The recent iron and coal combine between Belgium, Luxemburg, France and Germany, is an example well worth considering, and if we want to go back to the foundation of the movement we have only to consider the condition of chaos that made imperative the organization of the United States Steel Corp. It was only enormous combinations of capital that made possible our war effort in petroleum and then only through unified action under the supervision of the National Petroleum War Service Commission, plus the cooperation of the government through the Oil Division of the United States Fuel Administration.

It all points to the need for some sort of cooperative action in all lines of mineral production and agriculture for that matter, that will establish some rational relationship between production and consumption, that will check the deluge of raw materials that now flood our markets at irregular intervals, demoralizes prices, promotes waste, causes loss to both producer and consumer and, in general, brings a condition of chaos from which nobody benefits.

Today, and for some long time to come, the world can produce more of almost any given commodity than can be profitably consumed. Are we to permit the demoralization to continue, or are we to tell the truth about it and attempt a remedy? This does not mean price fixing or purchase by government.

Presupposes Agreement

ALL of this, of course, presupposes an agreement on the part of the industry as to fundamentals and a solidarity of purpose not overly much in evidence in the past. The facts have, however, never been so clearly presented, and it may be that we shall get some cooperative industrial action. If the American Petroleum Institute really wants to do something worth while it will, at the Tulsa meeting, appoint a Committee to investigate the entire legal aspect of the case and formulate a program. Later it should ask cooperation of the government in formulating the program so that it will have the joint approval of both the Federal Oil Conservation Board and the American Petroleum Institute.

Incidentally that committee should try to find out what can be done, not what can't. There has been altogether too much can't in the past and not enough can. Let's be affirmative for a change; it would at least be worth while trying as a new and novel experience.

As it stands now we have apparently worked ourselves into a sort of no man's land, where neither federal, or state, laws seem to have jurisdiction. Judge Hughes very ably pointed out what could not be done, both by the state and the nation, but failed to point out what could be done, and how.

How National Petroleum News Will Cover Biggest News Event of the Year

THE annual conventions of the American Petroleum Institute have come to be high spots of oil industry activity. Committees of real leaders in all branches and districts of the industry, who have been quietly active during the year on the common problems of the business, submit their work at these conventions to the institute membership.

The oil field standardization program,—fire prevention,—transportation,—accounting—the safety program—study of motor fuel—public relations; all these are vital to the oil industry and developments in each of these subjects and others in addition are brought out at the institute meetings.

National Petroleum News will give over much of its space in its issues of Dec. 8 and Dec. 15 to publishing the news of this A. P. I. convention at Tulsa. Following its policy of printing oil news written by its own experienced editorial staff, it will augment its Tulsa editorial staff with writers from other offices to insure it covers in detail the joint happenings at Tulsa.

These men will serve you a faithful, accurate account of what transpires there; Warren C. Platt, editor; V. B. Guthrie, managing editor; Paul Truesdell, Paul Wagner, W. A. Green, Lawrence E. Smith, J. C. Chatfield and A. F. Hinton, all of its own editorial staff.

On this subject the Federal Oil Conservation Board has been more definite; It says:

On pages 24-25:

State governments should promptly study the economic advantage of cooperative action by land owners and oil operators looking toward sane development of new fields, and consider legislation authorizing cooperative agreements, under proper safeguards. And state legislation, with the declared purpose of conservation, should be enacted to stop the waste of gas, the loss of its content of gasoline, and the even greater loss incident to the reduction of gas pressure in the oil sands.

There should be active cooperation between the oil producing states in the study of proposed legislation to the end that uniform laws may be enacted, or even agreements, or compacts entered into between the states, subject to ratification by congress. Even more pronounced should be the cooperation between the state agencies having authority in the regulation of oil and gas production, and the federal bureaus, whose investigative fields are essentially coterminous with the administrative jurisdiction of the state organizations. Such cooperation would be especially effective in the oil fields of the public-land states where federal leases and reserves are scientifically supervised by federal engineers, who can attain best results only with the full cooperation of the state officials. An excellent beginning in this cooperation is already in force.

The Supreme Court of the United States in the child labor cases indicated some of the limitations of Federal authority and in the Kansas natural gas case indicated some of the limitations of state authority. Should we have a petroleum compact between states similar to the Colorado river compact?

Should there be a standard petroleum law to be adopted by all states producing petroleum? Should the Sherman anti-trust law be amended? Just where does federal authority stop and state authority begin? What cooperation is practical between Federal and State authorities? Just what should be the program?

Work for Ablest Minds

HERE is work for the ablest legal minds in the industry; work of the highest importance, that to be successful must take precedence over all else and to which our legal friends could well give their entire time and attention; they could do no greater service either to their corporations or the public.

Mr. Farish, in his recent address at Chicago, Oct. 27, deplored lack of leadership in the industry. Here is opportunity to remedy that situation and nullify the criticism.

Will the American Petroleum Institute rise to the occasion?

The committee should be appointed, the investigation should be made, cooperation with the Federal Oil Conservation Board should be sought. A plain statement of fact should be prepared and presented to the congress. Then the responsibility must rest upon congress. A small pamphlet reviewing the situation could be distributed through filling stations, newspaper advertising could be used, the public and the congress would know the truth; the industry would have established the record; it would be in an impregnable position; it could face the future with a clear conscience and cheerfully.

Can it harmonize its own difficulties sufficiently to take such action, is there leadership that can successfully head such a movement?

One thing is sure: the old controversy is ended. Conservation is no longer a debatable issue. Meanwhile, we smother in a sea of oil, produced with no coordination between the running of the drill and market requirements; we agree the situation is deplorable, and possible of correction, if legal obstacles were removed. There are some of us, and the number is rapidly increasing, who have a lurking suspicion that we shall sooner or later look back upon our production debauch with dismay and regret.

Is there leadership in the industry adequate to meet the crisis? The Tulsa meeting will tell the story. I confess I await the date with much interest and considerable pessimism.

Why not follow Farish for another year and ask him to make it his particular job to find an answer to the problem?

Special Train Service To A. P. I. Meeting

NEW YORK, Nov. 29.—Special train service to Tulsa for the annual meeting of the American Petroleum Institute Dec. 7, 8, and 9, has been announced by six railroads.

The Frisco Railroad will operate a special train leaving St. Louis at 7:30 p. m. on Dec. 6, which will arrive at Tulsa at 7:30 a. m., Dec. 7.

The New York Central will have a special section of its "Southwestern Limited" leaving New York at 4:45 p. m. on Dec. 5, arriving at St. Louis on Dec. 6 at 5 p. m. For parties of sufficient numbers, Pullmans will be operated through to Tulsa, eliminating change at St. Louis.

The Pennsylvania Railroad will put extra Pullmans on two of their trains. One will leave New York at 4:50 p. m. Dec. 5, arrive at St. Louis at 5 p. m. on Dec. 6. The other will leave New York at 6:05 p. m., Dec. 5, and arrive at St. Louis at 5:10 p. m. Dec. 6. For organized parties of large enough numbers, this railroad will also operate Pullman cars through to Tulsa.

The Illinois Central System will operate a special train to Tulsa, leaving Chicago at 11:45 a. m., Dec. 6, arriving at Tulsa 7:30 a. m., Dec. 7.

The Chicago and Alton Railroad will operate special cars on two of its trains, one to leave Chicago 11:30 a. m., Dec. 6, and arrive at St. Louis at 6 p. m., and the other to leave Chicago at 3 p. m., Dec. 6, and arrive at St. Louis at 10:30 p. m.

The Chicago & Eastern Illinois Railway will operate special cars on its train "La Salle," leaving Chicago at 11:25 a. m., Dec. 6 and arriving at St. Louis, 5:55 p. m.

"Wildcat Special" Leaves Los Angeles Dec. 3

Staff Special

LOS ANGELES, Nov. 26.—The "Wildcat Special" train being run from California to Tulsa for the annual meeting of the American Petroleum Institute, under the auspices of the Chamber of Mines and Oil of California, will leave Los Angeles Dec. 3 instead of Dec. 4, as at first announced. Change in schedule was made to enable the train to arrive in Tulsa at 4 a.m. Dec. 6, so many California oil men could attend the various committee meetings set for the day, prior to the opening of the annual meeting on Dec. 7.

The train will arrive in El Paso Dec. 4 at 1 p.m. and spend 10 hours at that point. Short stops will be made at Fort Worth and at Dallas the train will pick up the Pullman arranged for by the Dallas oil men who will attend the meeting. A special Pullman will be run from San Francisco to become a part of the "Wildcat Special" at Los Angeles.

More than 100 reservations have already been made in Los Angeles and San Francisco and it is expected that close to 150 will make the trip on the special.

A number of California oil men are leaving early to enable them to make stops enroute, or to arrive in Tulsa two to three days early.

It is fully expected that approximately 200 California oil men will be in Tulsa for the opening session Dec. 7.

Standard Sells Coupons at 10% off List

CHICAGO, Nov. 27.—Standard Oil Co. of Indiana, meeting local competition in Mankato, Minn., today authorized the sale of coupon books at a discount of 10 per cent. The concession is local to Mankato. No change has been made in the tank wagon or retail service station price. But by use of coupon books any consumer can purchase gasoline at slightly less than the official filling station price. The retail price there being 23.1 cents a gallon discount is equivalent to a reduction of 2.31 cents per gallon service station.

Mexico's Insistence to Nationalize Oil Lands Brings Crisis

By A. E. Heiss
N. P. N. Staff Writer

WASHINGTON, Nov. 29. MEXICO and the United States have again reached the diplomatic relations breaking stage in their negotiations over the petroleum and agricultural land laws. They are in radical disagreement both about international law and the facts.

Divested of extreme verbiage, the United States government accuses Mexico of having disregarded the condition upon which this government gave diplomatic recognition to the Mexican administration in power in 1923. This condition, as understood by the American state department, was that Mexico was to carry out the agreements reached by the commission appointed by the two governments to settle claims. One of the agreements was the non-retroactive application of the laws enacted under Article 27 of the Mexican constitution.

Mexico strongly insists that her restoration to a diplomatic status was without conditions and cites correspondence which she claims proves it. She also denies that she is giving retroactive application to the petroleum and agricultural land laws.

Anything stronger than the withdrawal of Ambassador Sheffield and the relegation of Mexico to the category in which soviet Russia has been for four years seems out of the question.

Our state department published the fact that relations had again reached the diplomatically critical stage by giving out copies of notes exchanged by the two governments, in which the United States said it would stand upon four basic principles which it said had all been endorsed by the Mexican government as sound. They are as follows:

1. Lawfully vested rights of property of every description are to be respected and preserved in conformity with the recognized principles of international law and of equity.

2. The general understanding reached by the commissioners of the two countries in 1923, and approved by both governments at the time of resumption of diplomatic relations between them, stands unmodified and its binding force is recognized.

3. The principle of international law that it is both the lawful right and the duty of a government to protect its citizens against any invasion of their rights of person or property by a foreign government, and that this right may not be contracted away by the individual, is conceded.

4. The principle that vested rights may not be impaired by legislation retroactive in character or confiscatory in effect is not disputed.

The immediate point in the petroleum land dispute is that the Mexican government claims that it is neither retroactive nor confiscatory for it to require Americans claiming title to oil lands acquired prior to the debated constitution of 1917 to register those lands under the Mexican law. The Mexicans would also make their confiscation the penalty for any appeal by the American or other foreign holder of such lands to his government for support. Registering the lands automatically subjects them to the statutes under Article 27 and the American or other foreigner so registering lands subjects the lands to those statutes, which declare the substances in the sub-soil to be the property of the state.

Mexico Evades the Issue

THE American government claims that this is giving retroactive effect to Article 27. The Mexican government replies that there must be only one law for all in Mexico, but further contends that the effect of registering the land and giving up the right to appeal to the American government does not deprive the American of anything. It calls upon the United States government to submit concrete cases of disregard of international law, promising that it would be "disposed to repair such violations." It did not say it would repair them.

The Mexican government was exceedingly frank in declaring it was its intention to bring the situation around to a point where aliens would have to adjust themselves to the principle of the nationalization of petroleum and other minerals and agricultural lands. For that reason it required the registration of the lands and the renunciation on the part of aliens of the right to protection at the hands of their governments.

Publication of the correspondence is taken by diplomats in Washington as making a clear issue between the two governments, with Mexico insisting that there must be nationalization of lands regardless of the American notion, which is that vested rights may not be impaired by legislation and that the only way any government lawfully could obtain title would be by the process known as condemnation under the common law and expropriation under the civil law, the latter having been the foundation of law in Mexico until the constitution of 1917 was adopted.

American interests and the American government are not concerned with Mexico's nationalization of oil lands, title to which has been acquired since the Constitution of 1917 was adopted, with the disputed Article 27 which contains the nationalization policy. They do not agree with this in principle, but they do recognize the right of Mexico to adopt this policy as applied to properties acquired after the passage of that amendment to the constitution.

The entire issue between this government and Mexico is over the attempt of the Mexican government to nationalize lands secured by Americans in good faith before this principle of nationalization was enunciated in Mexico. This retroactive provision is in entire disagreement with all principles of international law, it is claimed.

Enemies of the Mexican government, or perhaps only the Calles administration, contend that that government or administration has taken its cue from Moscow and is determined to bring the era of private property to an end and bring back the era of ownership of all property by the sovereign. In Russia the sovereign is the governing committee of the communist party, acting, as it asserts, in the name of the Russian proletariat.

Pipe Line Removes Ohio Oil Polution Cause

LOGAN, O., Nov. 27.—Lines and tanks of the Buckeye Pipe Line Co. in southeastern Ohio have been cleaned, removing one cause for the lower price paid for Pennsylvania grade crude oil in Ohio than is paid in West Virginia and Pennsylvania, officials of the pipe line company have notified the Southeastern Ohio Oil & Gas Producers' Association. The association will convene Dec. 9 at Bremen, O.

A meeting was held Nov. 16 at Woodsfield at which A. D. Hufford, president, reiterated the aims of the association to protect the rights of the Ohio producers of the district. He also announced the election of A. E. Faine, New Straitsville, and Alex LaCroix, Lancaster, as directors and H. D. Atha, Logan, as second vice-president.

Mr. Faine addressed the gathering, emphasizing to the producers the desirability of marketing Ohio petroleum products in the territory in which the crude is produced and of acquainting consumers generally of the good qualities of the Ohio oil.

The differential of 20 and 25 cents for Ohio Pennsylvania grade crude under the same grade in other states, had discouraged Ohio producers, Mr. Faine said. He said the function of the association was to handle situations which brought about such low prices.

I. C. Grim, Sylvania Oil Co.; State Representative F. H. Ward, Woodsfield; J. P. Flynn, St. Marys (W. Va.) producer and refiner, and S. D. Steward, auditor of Monroe county, also spoke. Mr. Steward said the oil industry paid 5 per cent of Monroe county's taxes.

W. L. Franks, Logan, is secretary of the association.

Fall and Doheny Statements to Senate Inquisitors Admitted in Court

By Roger B. Stafford
N. P. N. Staff Writer

WASHINGTON, Nov. 29.

STATEMENTS made to the senate committee on public lands and surveys by Edward L. Doheny, Sr., in explanation of his $100,000 loan to Albert B. Fall in November, 1921, and by Fall that he had been loaned the money by Edward B. McLean, Washington and Cincinnati newspaper publisher, were admitted as evidence against them in the Fall-Doheny Elk Hills oil lease conspiracy trial today by Justice A. A. Hoehling sitting in the Supreme Court of the District of Columbia. This was an important victory for the prosecution.

The question of admissibility of the two statements was argued all last Friday with the jury out of the courtroom. It arose when Owen J. Roberts, who with former U. S. Senator Atlee Pomerene is special counsel for the government in the oil lease cases, last Wednesday offered parts of the record of the senate investigation of nearly three years ago as evidence. The court recessed over Thanksgiving, heard the arguments Friday and then spent two days deliberating on the question.

Ruling Assures Life of Case

IT WAS the opinion of those who have followed the present conspiracy trial, that, had the senate statements been ruled out under a statute enacted in 1862, which granted testimony before either house of congress or committees of either house immunity from use in subsequent criminal trials involving the persons that testified, except in perjury cases, the government might not be able to prove the charges in the indictment against Fall and Doheny. The jury then would have found the two defendants not guilty or might have been instructed by the court to return a verdict of not guilty. The case would then be dead.

By differentiating finely on the point that Fall and Doheny voluntarily had made statements concerning the $100,000 transaction, and had not been forced to testify, the court enabled the prosecution to proceed with its case as planned. The ruling will keep alive the action because, should the jury find the defendants guilty on the evidence that is contained in the statements and is yet to be presented by the government, the ruling will be one of the bases for appeal. It is said the higher federal courts have never passed on the point covering the admissibility of statements given voluntarily to congressional committees as distinguished from testimony given by a witness that has been subpenaed by the committee.

In his statement Doheny said he had made the loan to Fall, an old friend, as a private loan, indicating it had no bearing on or relation to the subsequent granting of a contract to Doheny's Pan American Petroleum & Transport Co. for construction of a fuel oil base for the navy at Pearl Harbor, Hawaii, and the leasing of the Elk Hills oil reserve to the Pan American Petroleum Co., then the subsidiary of the Petroleum & Transport company.

Lawyers Outline Cases

ROBERTS at the opening of court Tuesday stated what the government expected to prove. He outlined the history of the naval petroleum reserves from 1908 when President Roosevelt withdrew from entry certain public lands as possible oil lands when the Navy considered turning from coal to oil as fuel.

The California oil reserves were set aside by President Taft in 1912 and were held intact for years, he said. Custody was transferred from the interior to the navy department and remained with the latter until May 31, 1921, when by executive order of President Harding the custody was shifted back to the interior department of which Fall was secretary.

Secretary Denby of the navy department wrote a letter to Secretary Fall saying there should be no drilling except offset wells, Roberts told the jury. Fall wrote he would administer the oil lands as he saw fit, consulting the secretary of the navy only as to matters of policy, Roberts said the government would show.

Shortly after administrative authority had been transferred, Fall suggested to Denby that he thought he could work out a plan whereby the government could exchange its royalty oil for fuel oil and also for tankage in which to store the fuel oil, Roberts said. Denby agreed to the plan, Roberts said evidence would show.

Fall's Desires Discussed

IN NOVEMBER, 1921, Roberts said, Fall discussed with Doheny Fall's financial needs and his desire to buy the Harris ranch next to his ranch in New Mexico. Doheny agreed to advance Fall $100,000. Doheny had withdrawn from his son's account in New York that amount in currency on Nov. 29, 1921, and the following day the son, E. L. Doheny, Jr., delivered the money to Fall at the Wardman Park hotel in Washington, Roberts asserted.

Fall then proceeded to El Paso, Texas, where a few days later he contracted to buy the Harris ranch, Roberts stated. When it became known to the senate that Fall had suddenly acquired wealth, Fall tried every way possible to conceal the source of the money, Roberts continued.

Roberts then took up the contract whereby Doheny agreed to build the fuel station at Pearl Harbor. This contract was signed April 25, 1922. Within a year after Fall received the $100,000 from Doheny the latter applied for a lease of the Elk Hills petroleum reserve and it was granted.

Doheny has admitted, Roberts said, that he expected the lease to yield a profit of at least $100,000,000. In December, 1922, 2,600,000 barrels more storage was contracted for and another lease granted, Roberts added. While bids were invited the contract granted Doheny was not in accordance with the invitation, Roberts said.

Doheny's Version Stated

FRANK J. HOGAN, chief counsel for Doheny, told the jury the Doheny phase of the $100,000 transaction with Fall, of the Pearl Harbor contract, and the Elk Hills lease. Not just two men but many men handled the details of the negotiations and the Pearl Harbor contract was signed by Acting Secretary E. C. Finney for the interior department and Secretary Denby for the navy department, Hogan said.

Hogan pictured Doheny as a patriotic citizen who had stepped forward in a national crisis, when there was danger of a war in the Pacific, to help build an essential item in the national defense.

He gave the life story of Doheny as a hardy prospector who had worked with pick and shovel alongside Fall in the West 40 years ago. Doheny had won a fortune and then lost it. Thirty years ago Doheny, then 40 years old, was broke. He discovered petroleum in Los Angeles and later in Mexico and by dauntless effort had since amassed a great fortune, Hogan narrated.

The $100,000 transaction was a loan to Fall, a personal affair intended to help an old time friend to gain a competence after years devoted to public service, Hogan asserted. Fall, he said, had been a United States judge when New Mexico was a territory. He had helped to frame its constitution when the state was admitted to the union, had been its attorney general and was

elected United States senator from it three times. He accepted the secretaryship of the interior in the Harding cabinet as a capstone for his public career, Hogan declared.

Planned One Year Tenure

FALL intended to remain in the cabinet only one year and then retire to his ranch, Hogan said, but the resignation of Will Hays as postmaster general on March 4, 1922, caused Harding to ask Fall to defer his leaving the cabinet another year because the public might think the Harding cabinet was disintegrating.

Had Fall's plans materialized he would have been out of the cabinet when the Pearl Harbor contract and Elk Hills cases came up, Hogan declared.

Hogan said that had not the administration of the oil reserves been transferred to the interior department, the navy would have had to build a petroleum division; the interior department already had such a division in the Geological Survey, he explained. He said the Pacific Oil Co. and Standard Oil Co. of California had taken 23,000,000 barrels of oil out of contiguous leases before the navy got a drop of oil out. He said the navy department had recommended that the lease should be given to Doheny's Pan American Petroleum Co. because it could drill the wells more quickly. He said Doheny gave up eight locations rightfully his to quiet the claims of the United Midway Oil Co.

Hogan then told of the appointment of Admiral J. K. Robison as navy fuel administrator and the desire of Fall to acquire the Harris ranch with its valuable water rights, a story that was told previously in the Walsh investigation in the senate and the civil suit in Los Angeles over the validity of the Elk Hills lease. This civil suit, lost by Doheny in the U. S. district court and court of appeal, is now in the Supreme Court of the United States.

Offered Doheny a Mortgage

HOGAN said Fall offered to give Doheny a mortgage on the Harris ranch and his own ranch but Doheny insisted the note from an old friend was all he wanted. He said the absence of banks from the part of New Mexico where Fall lived was the reason he wanted the $100,000 in currency.

He told of Doheny, Jr., going to Blair & Co., New York, to get the money from his father's account but that the account contained only $8,600. Doheny, Jr., then drew the money from his own account, and took it to Washington in a brown satchel and to Fall at the Wardman Park hotel. There was no secrecy, Hogan contended, as Doheny gave the hotel clerk his name and got from him Fall's suite number. When the money was delivered, he said, the doors to Fall's suite and to his office in it were open. Doheny, Jr., was accompanied by his secretary.

The transaction at El Paso and the making of later payments in New Mexico were open, Hogan said.

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Left, Albert B. Fall, former secretary of the interior; right, E. L. Doheny, Sr. Back of Mr. Doheny with his face partly obscured is E. L. Doheny, Jr., with member of Doheny counsel at extreme right

Doheny, Jr., delivered Fall's note to his father in New York and the latter tore off the signature and gave it to Mrs. Doheny, telling her to put it in a safe place, Hogan related. This was done so that if anything happened to either Doheny or Mrs. Doheny the executors of their estates would not close in on Fall before he had the ranches consolidated and on a going basis, he explained.

Doheny saved the government $850,000 on the Pearl Harbor contract, Hogan said the defense would show. It was not until October, 1922, or six months after the Pearl Harbor contract had been made, that Doheny recommended the opening of one section of the Elk Hills be opened. This was to enable the Pan American, Hogan said, to lay a pipe line to the seaboard where the company would build a refinery to help bolster crude oil prices which were low by increasing demand, and to create more competition for gasoline, the price of which was high.

May Remove Veil of Secrecy

Hogan concluded by saying the defense would try to tear off the veil of secrecy to get at the basic facts in the navy's plans in the Pacific of five years ago to bring justice to the defendants. To this end Secretary of the Navy Wilbur has been subpenaed. There is a question of whether he will testify because he cannot be forced to disclose military secrets.

Dr. George Otis Smith, director of the Geological Survey, the first government witness, produced maps of California oil fields and pipe lines, and Naval Reserves Nos. 1 and 2. He said he recommended the temporary withdrawal from entry of possible oil lands in 1908. He said it was estimated that No. 1 reserve contained about 250,000,000 barrels of oil. He told of how overproduction had caused crude prices to break in 1921 and produced a letter he and H. Foster Bain had written Fall about making the over production situation worse by further drilling. Dr. Smith testified he had no knowledge of the Doheny lease until after it had been granted.

Over the objection of Roberts, Dr. Smith was permitted on cross-examination by Hogan to say that outside drilling would reduce the gas pressure and increase the cost of production. He

said the volume of oil recovered would not necessarily be lowered.

Lease Offered as Evidence

ROBERTS read the Elk Hills leasing contract into the evidence at the Wednesday morning session.

Former Secretary of the Navy Josephus Daniels testified no leases had been granted in the Wilson administration although applications had been received.

A letter from Fall to Doheny thanking Doheny for surrendering the eight well locations and Harding's order transferring administration of the reserves were read. A letter from Fall to Denby, dated Oct. 30, 1922, saying wells were coming in soon and a letter from Doheny to Fall dated Nov. 28, 1921, which indicated the two previously had discussed the cost of tankage for Pearl Harbor, also were introduced. Details, according to the letter, were to be left to Finney for the government and J. J. Cotter, vice-president, Pan American Petroleum & Transport Co., in the absence of Fall and Doheny from their headquarters.

Will Ed Harris, Carrizoso, N. M., one of the eight Harris estate heirs, gave details of Fall's negotiating for the Harris ranch. The story is the same as told at the Walsh investigation and the Los Angeles trial. He said the nearest bank to Three Rivers was at Tularosa, N. M., 20 miles away. The purchase price of the ranch, he said, was $91,500.

Albert D. Brownfield, El Paso, Harris' brother-in-law, who also negotiated with Fall, also testified to the transaction. Harris and Brownfield testified under cross examination there was no secrecy about the deal.

George D. Flory and J. E. Benton, El Paso bankers, testified to the bank accounts of Fall and his son-in-law, C. C. Chase, who was collector of customs at El Paso and in whose office Fall and the Harris heirs met. There was nothing startling about the accounts.

Lenroot Tells of Evasion

U. S. Senator Irvine L. Lenroot, Wisconsin, who as a member of the senate committee on public lands and surveys called on Fall with U. S. Senator Reed Smoot, Utah, to disclose where he got the money to buy the Harris ranch, testified to Fall's unwillingness to name his benefactor. After Lenroot said he told Fall he owed it to the committee, the country and himself to give the information, Fall said the loan had been made by Edward B. McLean, Washington and Cincinnati newspaper publisher, the senator testified.

After Ernest K. Hill, clerk of the committee on public lands, and Theodore Mack had identified documents, McLean was called to the stand. He read a letter from Fall, dated Nov. 3, 1921, in which Fall asked McLean to go into a partnership with him for the acquisition of the Harris ranch, McLean to put in $132,000 and Fall his Three Rivers ranch. A week later McLean declined the offer, saying he had no funds for such an investment because the government was getting 73 per cent of his money then. He said he later consented to loan $100,000 to Fall, giving the latter two or three checks making up the amount. Fall returned the checks a few days later, saying a friend would loan him the money, McLean testified.

McLean also testified to being called to Atlantic City by Fall shortly before Christmas, 1923, and after the senate investigation was under way granted Fall permission to say he had loaned Fall the money. Fall at that time told McLean his political enemies were hounding him, McLean said. McLean saw Fall next at Palm Beach at which time Walsh came from Washington as a sub-committee of one of the investigation committee.

Walsh examined McLean, McLean said, and McLean within an hour saw Fall and his counsel, Wilton J. Lambert. Fall showed McLean, the latter testified, a telegram addressed to Doheny, telling that McLean had been examined and that Fall might also be examined but names would not necessarily be disclosed.

U. S. Senator Thomas J. Walsh, Montana, testified to Doheny's appearance before the committee on public lands Jan. 24, 1924, a day after Walsh had been visited by Gavin McNab, San Francisco lawyer who represented Doheny. The import of this visit was not brought out in the examination of Walsh. In the arguments Friday, however, it developed that McNab sought a chance for Doheny to present the statement which the government got into the evidence today.

Fall-Doheny Jury Reflects Apathy Of Public Toward Oil Leases

WASHINGTON, Nov. 29

THE jury sitting in the trial of Albert B. Fall and E. L. Doheny in the Supreme Court of the District of Columbia is singular in that its members are citizens of the United States but not voters. They are residents of the district but do not maintain voting residences in any state. They are not permitted to vote for even president of the United States. Being non-voters they have no political affiliations. None is a government employe, because the government is a party in this action.

But they probably represent a cross section of American citizenry, and their lack of knowledge of the details of the Fall-Doheny case, which has previously been aired in the Walsh inquiry into naval oil reserve leases in the senate and in the Elk Hills lease civil suit in Los Angeles, may be considered typical of the American public which has been devouring, digesting and assimilating the Hall-Mills murder case, Aimee McPherson's disappearance and the love affair of Peaches Browning.

* * *

Few Know of Case

FEW of the two dozen talesmen examined by counsel for the government, and Fall and Doheny, knew what the action was about. Fall and Doheny were names that appeared in newspaper headlines which a few had read. One had heard Senator Thomas J. Walsh of Montana talk of the oil lease cases over the radio in 1924, but had forgotten what the senator had said.

"My mind is a blank," this prospective juror answered when asked if he could sit in the case without prejudice, and many in the courtroom silently agreed with him.

Another said he made a "casual perusal" of the headlines but did not know any of the facts, allegations and denials in this momentous case, in which a member of a president's cabinet and the man said to possess the sixth largest fortune in America are accused of conspiring to defraud the United States government.

"This jury reveals appallingly the apathy of the American public in the affairs of their government," said a Washington correspondent who is credited with being one of the nation's foremost observers of public affairs. "The question of the guilt or innocence of Fall or Doheny does not seem so great as the fact that the public shows so little interest in one of the most important trials in American history."

Average Age is 33

The average age of the jury is 33 years. The oldest juror is 43 and the youngest 23. With one exception jurors' names are familiar in America since its independence. Here are the jurors, their ages and occupations:

Henry J. Briggs, 35 architect.

Henry D. Byers, Jr., 27, express wagon driver.

Clinton Carver, 25, steamfitter's helper.

George B. Cobb, 28, clerk.

Winfield Martindill, 23, clerk.

Alphonso E. Parker, 43, newsdealer.

Chester S. Parker, 40, grocery salesman.

Vernon S. Snow, 37, commercial artist.

Stephen Vermillion, 29, clerk.

Herbert A. Via, 41 drug store cigar clerk.

Christian Vogel, 43, restaurant steward.

William B. Farmer, 25, electrician.

This court is of about the same level in the District of Columbia as the county courts in the states except for the greater dignity and the fact that the justice is appointed by the President of the United States.

* * *

Newspapers Energetic

NEWSPAPERS do not reflect the public's apathy in the trial. Accommodations were made for 45 reporters in the small criminal court room over which Justice A. A. Hoehling presides. These accommodations have been filled most of the time.

Besides the reporters, jury, defendants and their counsel, court attaches and members of the bar there is space for only 65 persons. Witnesses or relatives of the defendants and their lawyers occupy most of that space. When a seat is vacant marshals admit a spectator but after the first session Nov. 22 the line waiting outside the courtroom has not been long.

When Frank J. Hogan, chief counsel for Doheny, revealed in his statement to the jury of the danger of a war with Japan five years ago the spectators were now awed. They revealed no reaction. But when Mr. Hogan later said E. L. Doheny, Jr., had taken $100,000 in currency from New York to Fall in Washington in a brown satchel and not a black bag, they tittered and the bailiff and marshals rapped for order. That was color.

Besides the few general spectators admitted to the courtroom when a seat is available, admittance is only by card issued by U. S. Marshal E. C. Snyder, formerly the Washington correspondent of an Omaha newspaper.

The court has not permitted the taking of photographs inside the courtroom or the courthouse. But in the park surrounding the courthouse, defendants and counsel must run a gauntlet of photographers every time they enter or leave the building.

After Mr. Doheny had posed three or four times for the photographers one noon, several of them thanked him for his courtesy.

"It wasn't kindness that made me pose, it was necessity," he corrected, but a twinkle in his eyes revealed a kindliness which, his counsel claims, induced him to loan Fall the $100,000 when Fall needed that sum.

* * *

Housed in New Hotel

THE Doheny retinue has quarters on one floor of the exclusive new Carlton hotel. Gossip about the capital has it that the expenses of the party is $1,500 a day but George G. Hill of Washington, the spokesman for Mr. Doheny, only laughs at this figure.

The party consists of Mr. and Mrs. E. L. Doheny, Sr., Mr. and Mrs. E. L. Doheny, Jr., the latter couple's baby and nurse, lawyers, secretaries and clerks who have charge of the great volume of documents, records and other appurtenances to the trial.

Days before the trial was to begin the restaurants in the neighborhood of the district courthouse were canvassed. These are not very alluring, so a suite of five rooms was rented in the Columbian Bldg., across Judiciary square from the courthouse, and fitted for serving a buffet luncheon to the Doheny and Fall parties each noon. A caterer accustomed to state and diplomatic affairs has luncheon ready at 12:30 each noon. There are lounging accommodations and conference rooms for the attorneys and the two defendants, where tactics for the afternoon court sessions may be discussed.

The chief counsel for the government, J. Owen Roberts of Philadelphia; former U. S. Senator Atlee Pomerene of Ohio, and U. S. District Attorney Peyton Gordon for the District of Columbia, eat their luncheon in a basement cafeteria about a block from the Columbian Bldg.

The jury eats at the St. James hotel and sleeps in the jury quarters in the courthouse. Deputy marshals are ever present and chaperone the jurors on their walks which are the only recreation they get.

Fall is staying at the Wardman Park hotel where he lived when he was secretary of the Interior.

Fine automobiles convey the defendants, their counsel and assistants to and from the court house. These cars are of the best American and English make.

Their glistening lacquer and polished metal made dingier the dull paint on the cars most common on Washington's streets. As they stood outside a side entrance to the courthouse only the white puffs that came rhythmically from their exhaust pipes, indicated their motors were running.

* * *

Facts for the Press

GEORGE G. HILL, a Washington publicity agent who has been associated with Frank J. Hogan, chief counsel for Doheny, for several years and is known about Washington as the Doheny spokesman, issued a mimeographed pamphlet of 18 pages to the press, entitled "Facts and Figures in the California Oil Case." The pamphlet contains the history of the naval oil reserves and the contracts of the interior and navy departents with the Pan American Petroleum & Transport Co., as well as the charges of the government that the $100,000 conveyed to Fall by E. L. Doheny, Jr., on Nov. 30, 1921, was a bribe and not merely a personal loan. Brief mention is also made of the Teapot Dome case and the indictment in which Harry F. Sinclair is charged with conspiracy to defraud.

Mr. Hill also issues each evening a story of the day's proceedings in court for the use of the press. This story cover the government's side as well as the defense in which he is primarily interested.

* * *

COUNSEL for E. L. Doheny, Sr., has instructed him not to say anything for publication during this trial or while his appeal in the Elks Hills civil suit is pending in the Supreme Court of the United States.

During the first two days of the trial Doheny, Jr., sat between his father and Fall with their lawyers on the flanks. After the second day Fall withdrew to one end of the defense counsel's table with three of his own lawyers and the two Dohenys with their lawyers sat at the other end.

Besides Mr. Hogan, Doheny is represented by Frederic R. Kellogg, New York, formerly a law partner of Charles Evans Hughes; Joseph J. Cotter, Washington, vice-president of Pan American Petroleum & Transport Co., and Harold Walker, Washington, also a Pan American vice-president.

Fall is represented by Wilton J. Lambert, Washington; Henry A. Wise, formerly U. S. District Attorney at New York; Levi Cooke, Washington, and Mark B. Thompson, a life-long friend from New Mexico.

The three government counsel previously mentioned are being assisted by George G. Chandler, Ulric J. Mengert, and W. L. Combs, all of Philadelphia, who came into the case with Roberts, and Frank Harrison, Lowell Turrentine and John B. Dempsey, all of Cleveland,

Seminole Restrictions Entirely Lifted

(By Telegraph)

TULSA, Nov. 29.—Seminole operators meeting today unanimously decided to lift all restrictions effective at once. The operators' committee will continue to function and the umpire will remain in the field as observer and to prevent waste of oil.

It is the belief of operators that pipe line and storage facilities will be adequate to handle the field's output from now on. The umpire estimated present pipe line capacity at 124,000 barrels daily. This does not include the new six-inch Barnsdall line, which will be completed this week and will add 15,000 barrels to pipe line capacity.

In the Earlsboro field visions of another Seminole come as a result of a well drilled to 4287 feet, or 12 feet in Wilcox sand, which produced 6535 barrels the last 24 hours. Prior to deepening it was making about 2500 barrels.

South of the Seminole field, the Indian Territory Illuminating Oil Co., No. 1 Livingston, an important wildcat in Sec. 15-8-6, had only seven feet of Hunton lime from 3835 to 3842 feet and made 335 barrels in 18 hours. Getting the Hunton much higher than the average in Seminole and finding only seven feet of it makes this look very favorable for a big well in Wilcox sand, which should be found at around 3990 feet.

California Has 176 Gasoline Plants

LOS ANGELES, Nov. 26

CALIFORNIA now has a total of 176 natural gasoline plants, with an estimated daily capacity of about 1,362,680,000 cubic feet of gas. The cut of natural gas in California ranges slightly more than one gallon to the 1000 cubic feet. Nine of these plants were shut down, when a recent census was made by National Petroleum News.

Sixty companies own the 176 plants. The absorption method of recovering gasoline from the gas is in the lead with 125 plants. Thirty-one plants use combination compression and absorption. Seven compression plants are operating, with the same number using the combination oil and charcoal absorption method. One charcoal plant is listed with 5 booster plants.

The Standard Gasoline Co., owned by the Standard Oil Co. of California, operates 44 plants with an estimated daily capacity of 346,930,000 cubic feet, while the Shell Co. operates seven plants with a combined estimated daily

Natural Gasoline Plants in California Corrected to Nov. 15, 1926

Key to abbreviations used; Abs.—Oil absorption plant; Bstr.—Booster plant; Char.—Charcoal absorption plant; Comb.—Combination compressor and oil absorption plant; Comp.—Compressor plant; O. & C.—Combination oil and charcoal absorption plant.

Company	Location of Plant	No. of Plants	Type	Daily Capac. M.C.F.
Ahlburg Gasoline Co	Long Beach, 35th & Lime	1	Abs.	8,000
Ahlburg Gasoline Corp.	Long Beach, 35th & Pine	1	Abs.	8,000
American Gas. Co.	Santa Maria, Brookshire Lse.	1	Comb.	2,750
Associated Oil Co.	Midway, Asso. 26-B	1	Abs.	2,800
Balell Gasoline Co.	Midway, Balboa Lease	2	Abs.	4,000
Bankline Oil Co.	Long Beach	1	Abs.	25,000
Bankline Oil Co.	Santa Fe Spgs., G. P. Lse.	1	Abs.	30,000
Belridge Oil Co.	Elk Hills, Sec. 34-S	2	Abs.	10,000
Brea Canyon Oil Co.	Coyote Hills, Brea-Olinda Lse.	1	Comb.	2,000
California Gasoline Co.	Huntington Beach, Savage Lse.	1	Abs.	3,000
California Gasoline Co.	Huntington Beach, V-M Lse.	1	Abs.	2,000
California Gasoline Co.	Long Beach	5	Abs.	31,000
California Gasoline Co.	Montebello, Baldwin Lse.	1	Abs.	1,200
California Gasoline Co.	Montebello, Red Star Lse.	1	Abs.	1,500
California Gasoline Co.	Rosecrans, G. P., Vaughn Lse.	1	Abs.	10,000
California Gasoline Co.	Santa Fe Spgs., Stoiny Lse.	1	Abs.	6,500
California Gasoline Co.	Santa Fe Spgs., Getty Lse.	1	Abs.	10,000
California Gasoline Co.	Santa Fe Spgs., Mattern Lse.	1	Abs.	10,000
California Gasoline Co.	Ventura, So. Mt. Lse.	1	Comb.	8,000
California Gasoline Co.	Ventura, Shields Lse.	1	Abs.	1,500
Calumet Oil Co.	Fillmore	1	Comb.	500
Central Oil Co.	Huntington Beach	1	Abs.	250
Cienaga Corp.	Fillmore	1	Comb.	15,000
Coalinga Empire Oil Co.	Coalinga	1	Abs.	200
Cowan Oil & Refg. Co.	Rosecranz, Padleford Lse.	1	Abs.	7,000
Export Refining Co.	Torrance, C. C. M. O. Lse.	2	Comb.	20,000
E. E. Combs.	Long Beach, Los Cerritos	1	Abs.	500
*Fellows Gasoline Co.	Long Beach, Surbeck Lse.	1	Abs.	25,000
Fellows Gasoline Co.	Long Beach, Globe Lse.	1	Abs.	25,000
Fellows Gasoline Co.	Huntington Beach	1	Abs.	15,000
Fullerton Oil Co.	Coyote Hills, Brea Canyon	1	Comb.	3,100
O. C. Fields Gas. Corp.	Huntington Beach, Holly Dev. Lse.	1	Abs.	6,000
O. C. Fields Gas. Corp.	Sunset, Transport Lse.	1	Abs.	6,000
General Petroleum Corp.	Coyote Hills, Tonner Lse.	1	Abs.	10,000
General Petroleum Corp.	Long Beach, Walnut & Hill	1	Abs.	5,000
*General Petroleum Corp.	Rosecranz, Athens	1	Abs.	5,000
General Petroleum Corp.	Rosecranz, Howard Townsite	2	Abs.	12,500
General Petroleum Corp.	Rosecranz, Marine Lse.	1	Abs.	500
General Petroleum Corp.	Santa Fe Springs	1	Abs.	20,000
General Petroleum Corp.	Ventura, Barnard Lse.	1	Abs.	10,000
Gilmore Oil Co.	Long Beach	1	Abs.	10,000
Gilmore Oil Co.	L. A. Salt Lake (Los Angeles)	1	Abs.	2,000
Gilmore Oil Co.	Sunset, Sec. 34-32-34	1	Abs.	2,000
Gralan Oil Co.	Midway, Gralan Lse.	1	Abs.	400
Holly Oil Co.	Huntington Beach, Holly Lse.	1	Comb.	4,000
Honolulu Cons. Oil Co.	Midway, Honolulu Lse.	3	Comb.	30,000
Hugh B. Evans, Inc.	Midway, Evans Lse.	1	Abs.	250
Interstate Oil Co.	Sunset, Sec. 36-3-24	1	Abs.	400
La Habra Gasoline Co.	Fullerton, Graham-Loftus Lse.	1	Abs.	5,000
*La Habra Gasoline Co.	Fullerton, Hole Lse.	1	Abs.	5,000
*La Habra Gasoline Co.	Fullerton, Hualde Lse.	1	Comp.	5,000
Lomita Gasoline Co.	Long Beach, Jergins City Lse.	1	Abs.	10,000
Lovell Gasoline Corp.	Midway, Cal. Pet Pl. #6	1	Comb.	2,500
Lovell Gasoline Corp.	Midway, North Amer. Con.	1	Comb.	3,000
Lovell Gasoline Corp.	Midway, Boston-Pac. Lse.	1	Abs.	2,000
Lovell Gasoline Corp.	Sunset, Ethel D Lse.	1	Abs.	2,000
Lovell Gasoline Corp.	Torrance, Superior Lse.	1	Abs.	6,000
*Miley, E. J.	Rosecranz, Athens	1	Abs.	1,000
Mutual Gasoline Co.	Long Beach	1	Char.	10,000
North Amer. Oil Cons.	Midway, Sec. 28-B	1	Abs.	2,000
Norwalk Co.	Santa Fe Spgs., G. P. Lse.	1	Abs.	30,000
Olig Crude Oil Co.	Midway, Sec. 32-31-23	1	Abs.	50
Olinda Gasoline Co.	Coyote Hills, C. C. M. O. Lse.	1	Comp.	1,500
Olinda Gasoline Co.	Coyote Hills, C. C. M. O. Lse.	1	Bstr.	
Pacific Natl. Gaso. Co.	Long Beach, American Ave.	1	Abs.	6,000
Pacific Natl. Gaso. Co.	Long Beach, Los Cerritos	1	Abs.	1,000
Pacific Natl. Gaso. Co.	Rosecranz, Miley-Marland #2	1	Abs.	7,000
Pacific Natl. Gaso. Co.	Rosecranz, Miley-Marland #3	1	Abs.	9,000
Pacific Natl. Gaso. Co.	Rosecranz, Athens	1	Abs.	10,000
Pacific Natl. Gaso. Co.	Santa Fe Spgs., Pac. Pet Lse.	1	Abs.	600
Pan Am. Westrn Pet. Co.	Elk Hills, Crampton K Lse.	1	Comb.	15,000
Pan Am. Westrn Pet. Co.	Elk Hills, Sec. 34-30-24	1	Bstr.	9,000
Pan Am. Westrn Pet. Co.	Long Beach, Temple & Arbelle	1	Comb.	2,500
Pan Am. Westrn Pet. Co.	Torrance, Marbel Lse.	1	Comb.	3,500
Petroleum Securities Co.	Inglewood, Ruble Lse.	1	Comp.	11,000
Rancho La Brea Oil Co.	L. A.-Salt Lake (Los Angeles)	1	Comb.	5,000
Rice Branch Oil Co.	Santa Maria, R. R. Lse.	1	Abs.	1,000
Rio Grande Oil Co.	Long Beach, Ramsey Lse.	1	Abs.	9,000
Rio Grande Oil Co.	Santa Fe Spgs.Getty-Baker Lse.	1	Abs.	1,300
Rex Gasoline Corp.	Long Beach	1	Abs.	5,000
Richfield Oil Co.	Huntington Beach, Republic Lse.	1	Abs.	2,500
Richfield Oil Co.	Midway, Calidon Lse.	1	Abs.	1,750
Richfield Oil Co.	Sunset, Sec. 32-12-24	1	Abs.	2,500
Ryan & Hackett	Long Beach, Interstate Lse.	1	Abs.	1,200
Ryan & Hackett	Rosecranz, Athens	1	Abs.	200
Ryan & Hackett	Rosecranz, Pac. Pet. Lse.	1	Abs.	400
Sentinel Oil Co.	Torrance, Joughin Lse.	1	Comb.	10,000
Shell Co. of Calif.	Coalinga, Sec. 26	1	Abs.	4,000
Shell Co. of Calif.	Coyote Hills, Columbia Lse.	1	Abs.	2,000
Shell Co. of Calif.	Coyote Hills, Grazide Lse.	1	Abs.	10,000
Shell Co. of Calif.	Dominguez, Reyes Lse.	1	O. & C.	20,000
Shell Co. of Calif.	Long Beach, Coseboom Lse.	1	O. & C.	30,000
Shell Co. of Calif.	Santa Maria, Careaga Lse.	1	Abs.	2,000
Shell Co. of Calif.	Ventura, Gosnell Lse.		O. & C.	100,000
Signal Gasoline Corp. Inc.	Long Beach	2	Abs.	20,000
Signal Gasoline Corp.	Long Beach	2	Abs.	12,000
Signal Hill Gasoline Co.	Long Beach, United Haas Lse.	1	Abs.	5,000
Signal Hill Gasoline Co.	Long Beach, United Denni Lse.	1	Abs.	3,000
St. Helens Petr. Co., Ltd.	Coyote Hills, Johnson Lse.	1	Abs.	2,500
St. Helens Petr. Co., Ltd.	Midway, King Lse.	1	Abs.	2,500
St. Helens Pet. Co., Ltd.	Midway, Schultz Lse.	1	Abs.	2,500
St. Helens Riverside Props.	Montebello, Monterey Lse.	1	Abs.	2,500
Standard Engineering Co.	Dominguez, Callender Lse.	1	O. & C.	8,000
Standard Engineering Co	Inglewood, Shell Rindge Lse.	1	O. & C.	4,500
Standard Engineering Co.	Newhall	1	O. & C.	15,000
*Standard Gasoline Co.	Belridge, Cahn Lse.	1	Comb.	550
Standard Gasoline Co.	Coyote Hills, Birch Lse.	1	Abs.	900
Standard Gasoline Co.	Coyote Hills, Murphy Coyote Lse.	1	Comb.	11,500
Standard Gasoline Co.	Elk Hills, Sec. 35-S	1	Abs.	7,500
Standard Gasoline Co.	Elk Hills, Sec. 31-S	1	Abs.	5,000
Standard Gasoline Co.	Elk Hills, Hay Lse.	1	Comb.	4,000
Standard Gasoline Co.	Elk Hills, Tupman Lse.	1	Comb.	1,000
Standard Gasoline Co.	Huntington Beach	1	Comb.	14,280
Standard Gasoline Co.	Huntington Beach Asso. Fowler Lse.	1	Abs.	5,000
Standard Gasoline Co.	Huntington Beach, Miley-Keck Lse.	1	Abs.	5,500
Standard Gasoline Co.	Inglewood, Asso. Vickers Lse.	1	Abs.	6,500
Standard Gasoline Co.	Inglewood, Baldwin Lse.	1	Abs.	3,750
Standard Gasoline Cg.	Inglewood, L. A. I. #1 Lse.	1	Comb.	14,380
Standard Gasoline Co.	Long Beach	3	Abs.	58,000
Standard Gasoline Co.	Midway, Derby Lse.	1	Comb.	2,640
Standard Gasoline Co.	Midway, Eagle Creek Lse.	1	Comb.	500
Standard Gasoline Co.	Midway, McNee Lse.	1	Comb.	8,340
Standard Gasoline Co.	Midway, Fellows	1	Abs.	3,800
Standard Gasoline Co.	Midway, Kerto	1	Abs.	30,000
Standard Gasoline Co.	Midway, Lakeview	1	Abs.	6,000
Standard Gasoline Co.	Midway, Puritan	1	Abs.	6,800
Standard Gasoline Co.	Midway, Sixteen	1	Abs.	6,500
Standard Gasoline Co.	Midway, 19-G	1	Abs.	6,500
Standard Gasoline Co.	Midway, 29-G	1	Abs.	6,000
Standard Gasoline Co.	Midway, 33-G	1	Abs.	3,000
Standard Gasoline Co.	Midway, Midway	1	Bstr.	5,000
Standard Gasoline Co.	Midway, Nine D	1	Bstr.	6,500
*Standard Gasoline Co.	Midway, Sec. 28	1	Comp.	165
*Standard Gasoline Co.	Midway, Sec. 30	1	Comp.	470
Standard Gasoline Co.	Montebello, Baldwin Lse.	1	Abs.	1,200
Standard Gasoline Co.	Newhall, Pico Lse.	1	Comb.	240
Standard Gasoline Co.	Richfield, Kramer #2 Lse.	1	Comb.	5,750
Standard Gasoline Co.	Rosecranz, Superior-Maxwell Lse.	1	Abs.	2,000
Standard Gasoline Co.	Santa Fe Spgs., Asso-Green Lse.	1	Abs.	5,000
Standard Gasoline Co.	Santa Fe Spgs., Elliott-Clark Lse.	1	Abs.	20,000
Standard Gasoline Co.	Santa Fe Spgs., Gertrude Lse.	1	Comb.	4,970
*Standard Gasoline Co.	Santa Fe Spgs., So. Whittier	1	Bstr.	
Standard Gasoline Co.	Torrance, Marble Fee	1	Comb.	3,260
Standard Gasoline Co.	Ventura, Asso-Lloyd #1	1	Abs.	17,500
Standard Gasoline Co.	Ventura, Asso-Lloyd #2	1	Abs.	20,000
Standard Gasoline Co.	Ventura, Asso-Lloyd #3	1	Abs.	35,000
Standard Gasoline Co.	Wheeler Ridge, Kern Co. #2	1	Comb.	935
The Petroleum Co.	Coyote Hills, Gilman Lse.	1	Abs.	300
The Redondo Co.	Torrance, Cunningham Lse.	1	Abs.	3,000
Torrance Gas. & Rfg. Co.	Torrance, C. C. M. O. Lse.	1	Abs.	12,000
U. S. Refining Co.	Davidson City	1	O. & C.	30,000
Union Oil Co. of Calif.	Coyote Hills, Stearns #3	1	Abs.	10,000
Union Oil Co. of Calif.	Coyote Hills, Stearns #2	1	Abs.	3,500
Union Oil Co. of Calif.	Dominguez, Hellman Lse.	1	Abs.	28,500
Union Oil Co. of Calif.	Huntington Beach, Copeland Lse.	1	Abs.	5,000
Union Oil Co. of Calif.	Richfield, Morse Lse.	1	Abs.	12,000
Union Oil Co. of Calif.	Rosecranz	1	Abs.	17,000
Union Oil Co. of Calif.	Santa Fe Spgs., Bell Lse.	1	Abs.	12,000
Union Oil Co. of Calif.	Santa Maria, Newlove Lse.	1	Abs.	12,000
Union Oil Co. of Calif.	Ventura Torrey, Lee Lse.	1	Abs.	850
Universal Cons. Oil Co.	Lost Hills	1	Abs.	750
West Coast Refining Co.	Richfield, Bradford Lse.	1	Abs.	8,000

*Shut Down

capacity of 178,000,000 cubic feet. One of the Shell's plants is located in the Ventura Avenue field and has been increased recently until it can now run 100,000,000 cubic feet a day.

A recent report, compiled by the San Francisco office of the Bureau of Mines, shows an average recovery of 1.3 gallons to the cubic feet of gas, based on reports received from 145 California plants.

of the plants in operation, is slightly better than three-quarters of a gallon to the 1000 cubic feet.

But the gas coming from the new wells in the town lot area of Huntington Beach, a new district recently developed, has a gasoline content of slightly better than three gallons to the 1000 cubic feet.

The following list, recently corrected,

Output of California natural gasoline plants for September, was as follows, according to the Bureau of Mines:

Type of plant	Gas Treated M. Cubic Feet	Natural Gasoline Produced Gals.	Gasoline Recovery Per M. Cubic Feet Gals.
Oil Absorption	15,147,545	20,923,569	1.381
Compressor	316,351	515,111	1.628
Comb. Compression and Oil Absorption	3,686,459	6,338,566	1.719
Comb. Oil and Charcoal Absorption	4,773,793	4,934,613	1.034
Charcoal Absorption	1,284,349	57,925	045
Drip	... ...	8,482	... ...
Total	25,208,497	32,778,266	1.300

The natural gasoline content of the gas in the Ventura Avenue field, where the Shell Co is operating its large plant, and where the gas exceeds the capacity

gives name of the company operating the plant; location of plant as to field and lease; estimated daily capacity per thousand cubic feet and type of plant:

Humphreys is S. O. Indiana Director; William E. Warwick Resigns

CHICAGO, Nov. 26

WILLIAM E. WARWICK, who went to work for the Standard Oil Co. of Indiana 38 years ago as a draftsman, has resigned as vice-president, director and general manager of the manufacturing department of the company, effective Jan. 1. This was announced today by Col. Robert W. Stewart, chairman of the board of directors.

Col. Stewart states Mr. Warwick will become advisor in refinery matters to the chief executive and the board of directors of the Pan American Petroleum & Transport Co., which is affiliated with the Standard of Indiana.

Mr. Warwick will be succeeded on the board by Dr. R. E. Humphreys, manager of the Whiting refinery, who also will become assistant general manager of the manufacturing department. Dr. Humphreys has been with the company 26 years. He began work as a chemist at the Whiting plant. He was one of the men that helped to make the Burton cracking process a commercial success, chiefly by his invention of the false bottom to reduce deposition of carbon on the still bottom.

Beaumont Parks, vice-president, a member of the board and assistant general manager of the manufacturing department, succeeds Mr. Warwick as general manager of that department. Other promotions and changes at the Whiting refinery effective Jan. 1, also were announced as follows:

Dr. Gentry Cash, superintendent of the Whiting refinery, succeeds Dr. Humphreys as manager.

H. F. Glair, assistant superintendent, becomes general superintendent of the refinery.

J. E. Evans, assistant superintendent, is appointed assistant general superintendent.

Dr. O. E. Bransky, superintendent, of the paraffin department, becomes assistant general superintendent.

Dr. E. J. Shaeffer, superintendent of the light oils department, becomes assistant general superintendent.

F. D. Rexwinkle, assistant superintendent of the paraffin department, becomes superintendent of that department.

P. J. Sweeney, foreman in charge of pressure still operations, becomes superintendent of the light oils department.

Dr. A. S. Musselman, foreman in charge of treating in the paraffin department, is appointed assistant superintendent of the paraffin department.

In announcing the resignation of Mr. Warwick, Col. Stewart said:

"Mr. Warwick's services with this company have been untiring, faithful and loyal. He has occupied many positions of trust in the manufacturing department of the company and for the last seven years has been a director. It is with the sincerest regret that the board of directors has accepted his resignation.

"Mr. Warwick has been invited to act as advisor in refinery matters to the chief executive and board of directors of the Pan American Petroleum & Transport Co., which invitation he has accepted. We prophesy that in this service with an affiliated company he will be most effective and valuable and that his influence will always be to further the interest of the Standard Oil Co. of Indiana whose loyal servant he has been for so many years."

Clark Co. Forms Special Motor Oil Division

CLEVELAND, Nov. 27.—The Fred G. Clark Co., in line with a new program of intensive concentration on Hyvis during 1927, and as an additional service to large distributors, is establishing a new department which will be known as Hyvis refinery sales division. This department in the future will handle all Hyvis sales to large distributors who purchase straight carloads or tank cars for shipment direct from the refinery. D. K. Miller, formerly manager of Hyvis central sales, will be manager of this new division. For the present Mr. Miller will have his headquarters at Cleveland, but the management states that later he will probably be locaed at their refinery at Warren, Pa.

The territory of Clark's Chicago plant under the management of Bruce E. Beyer has been increased to include all former territory served by that plant and Michigan, Indiana, southern states, all of the west and Pacific Coast territory except in the sale of Hyvis to carload buyers for shipment direct from the refinery.

Executive offices including those of Fred G. Clark, president and treasurer, John J. McNerney, vice-president and general manager, and E. D. Davis, secretary and auditor, will be in Cleveland.

The Cleveland plant will continue to serve the trade in Ohio, western Pennsylvania and western New York carrying a complete line of lubricating oils and making shipments in assorted carloads or less than carload quantities.

The company's New York office has been moved to Warren, Pa., and until Jan. 1 will continue to control the territory formerly served by it. After Jan. 1 this territory will be handled by the Cleveland office. George W. Ahl, formerly manager of the New York office, has been appointed sales manager of the Conewango Refining Co. and has moved to Warren, Pa. In the future, Mr. Ahl will devote his entire time to the Conewango Refining Co. and the purchases and sales of tank cars of Pennsylvania oils, other than Hyvis, for the Clark company. All Hyvis sales in the former New York office in the future will be under the supervision of Mr. Miller.

G. H. Kibbee, formerly of the Chicago office, has been appointed credit manager and transferred to Cleveland, from where he will direct and supervise credits for all branches and departments.

It is the intention of the Clark company to concentrate on the sale of Hyvis in 1927, and Mr. McNerney has stated that the company is now developing an intensive sales and advertising campaign on this product.

During the last year extensive improvements and additions have been made to the Conewango refinery. New equipment is being installed and further improvements are contemplated to increase production of Hyvis.

Crane-Upton County Production Goes Above 25,000 Barrels Daily

By Paul Wagner
N. P. N. Staff Writer

HOUSTON, Nov. 29

PRODUCTION in Crane and Upton counties, Texas, which last week averaged upwards of 20,000 barrels daily, was shot across the 25,000-barrel mark on completion, Nov. 23, of a 6000 barrel well of the Roxana Petroleum Corp., on its Ed S. Hughes lease. The Roxana completion, No. 3 Hughes, in the William Teer survey, is about a half mile southeast of two wells each making 3000 barrels, initial production, for the Dixie Oil Co., Inc.

The original big well of the Dixie on the Hughes, completed July 4, last, which had produced roundly 200,000 barrels of oil up to Nov. 17, was one of the factors bearing on a forecast published in the July 28, 1926, issue of this periodical which set up a production mark of 25,000 barrels daily for the Crane-Upton area by Nov. 1. The large number of small wells finished in the Hurdle district in comparison with larger initial yields indicated by the Dixie wells had the effect of holding down the field average temporarily.

Dixie Extends Production

COINCIDENT with the Roxana's big well, the largest ever completed in the Hurdle district, the Dixie scored again with the bringing-in of a 1000 barrel well in sec. 2 of the R. Harris survey, a mile southeast of earlier production in the eastern part of the field. This well, which is on another Hughes tract, is identified as No. 11. It flowed natural at 2025 feet, but soon sanded up and has not been put back on production.

Cumulative production dating from the time of the Upton county (Hurdle district) discovery well, August 30, 1925, had reached to a total of 447,000 plus barrels, Nov. 17, last. Of this total, nearly 242,000 barrels had come from three wells of the Dixie, completed since June 1 last on the Hughes tract, in the William Teer survey. All told there have been only seven or eight wells in Crane and Upton counties to make more than 1000 barrels, initial production daily, and one of these was a completion of the Gulf Production Co., in the McElroy ranch pool, 12 miles north of the Hurdle district development.

A considerably larger number of wells completed for initial productions of 300 to 500 barrels was supplemented by perhaps a dozen others that were good for 750 to 950 barrels in their first 24-hour periods.

More than 50 per cent of the wells in the Hurdle district have been good originally for less than 150 barrels daily, but the relatively low cost of completing them as development proceeds has made operations fairly profitable to the dozen interests now owning production in the field.

After the first well has been completed and a field organization is in position to go ahead with further development it is estimated that the average hole finished to the 2100-2300-foot level will cost from $10,000 to $12,000, as only 8-inch and 6-inch strings of casing are set in the Hurdle district.

Somewhat higher costs attach to development at the 2850-foot level in the McElroy pool, 12 miles north of the west end of the Hurdle district, along the Crane-Upton boundary; and the University pool, six miles northwest of McElroy development in Crane county, where completion depths approximate 3000 feet.

Nearly 150 Wells Completed

A TOTAL of 146 producing wells have been completed in the Crane-Upton territory, including six in the McElroy ranch pool; three in the University (Church & Fields) pool; one in Winkler county, which is included in this survey because it represents the discovery well of still another pool in the old Permian age salt basin of west Texas; the remaining 135 wells coming under Hurdle district classification.

As previously pointed out in numerous articles appearing in this periodical with regard to development in West Texas, the Hurdle district oil comes from above-sea-level depths in the lime formation found around the rim of the old Permian basin. McElroy ranch field production and the yields from the University pool wells come from the lime horizon at below-sea-level depths, where structural conditions or "blisters" are found out in the basin itself.

An accompanying tabulation gives performance records and completions data on wells of the 12 companies operating in the Hurdle district, together with similar information on wells completed in the Crane-Upton territory outside the Hurdle district. Gulf Production Co., owns production in both the Hurdle district and the McElroy ranch field. The three companies operating University pool and Winkler county properties are not as yet active in the Hurdle area.

Gulf Owns Field As Unit

THE Gulf, which recently purchased the McElroy ranch field holdings of William H. Dunning, Jr., for a reported consideration of $1,800,000, a part of which is to be paid out of oil produced, owns that promising development area in its entirety and will be in position to drill it up as a unit operation. It will be noted from the accompanying performance record of wells that only nominal declines have been shown by the Gulf's wells on the McElroy and Crier-McElroy properties in the McElroy ranch pool.

McElroy ranch development was held back somewhat (page 40, Oct. 26, 1926 issue, National Petroleum News) pending construction of storage facilities before drilling in a number of good wells late in October. The worth of these wells, which had been partly indicated by earlier completions, also figured in July estimates of what to expect by Nov. 1 from Crane and Upton counties. The fact that their completion had to be held up pending storage construction also tended to delay the time when production could attain the 25,000 barrel mark.

McElroy ranch development, which from present indications promises to be entirely in the hands of a single company, promises to go the Big Lake field one better in the character of its production control. Big Lake, 40 miles east of the Hurdle district, in southwestern Reagan county, is controlled by two interests, i.e., the Big Lake Oil Co., and the Texon-Group 1 Oil Corp. interests.

Well Declines Figured

IT will be noted in connection with the accompanying completions and well performance data that National Petroleum News has again carried field analysis into phases never before attempted by any oil periodical. In addition to showing initial productions of wells and present yields as of November 17, last, the tabulation includes generally the cumulative productions of wells or well groups. The barrels of decline for wells or well groups are given in most instances, together with a column showing the number of barrels produced for each barrel of decline on enough wells to make quick analyses of performance data possible.

It is possible to check declines in terms of barrels produced per barrel of decline only, of course, when initial and present production figures can be checked against cumulative yields. When such figures are available in accurate form they permit one of the best checks of well declines known.

Although it is possible to go further with them and project future production with a fair degree of accuracy no at-

Well Completions and Performance Data to Nov. 17, for Crane and Upton Counties, Texas

Company—Well	Location	Date Comp.	Pay Record	Initial Prod.	11-17-26 Prod.	Total Prod. to 11-17-26	Barrels Decline	Bbls. Produced Per Bbl. Decline
Dixie Oil Co., Inc.								
Burleson 1	Sec. 100, T. C. Jones Sur.	3- 7-26	2188-2219	25				
Burleson 2	Sec. 100, T. C. Jones Sur.	4-15-26	2185-2191	10	7.2	1,764	27.8	63.4
Burleson 7	Sec. 100, T. C. Jones Sur.	9-20-26	-2315	270	219.6	33,237	50.4	65.9
Burleson 3	Sec. 100, T. C. Jones Sur.	5-23-26	2206-2211	80				
Burleson 4	Sec. 100, T. C. Jones Sur.	.....	2210-2260	..	16.3	6,693	.....	
Burleson 5	Sec. 2, J. Nidiver Sur.	7-10-26	2125-2182	40			.....	
Burleson 6	Sec. 2, J. Nidiver Sur.	8-16-26	2080-2148	40			.....	
Burleson 8	Sec. 3, J. Nidiver Sur.	10-26-26	2080-2160	30	27.9	5,703	.....	
Hughes 1	Sec. 4, Wm. Teer Sur.	6- 1-26	2067-2093	45				
Hughes 2	Sec. 4, Wm. Teer Sur.	7- 4-26	2025-2049	3000				
Hughes 3	Sec. 4, Wm. Teer Sur.	9- 2-26	2042-2088	200	1198.8	241,622	2046.2	118.8
Hughes 5	Sec. 4, Wm. Teer Sur.	10- 1-26	2140-2154	1200			.....	
Hughes 8	Sec. 4, Wm. Teer Sur.	11-15-26	2066-2100	Show	991.3	24,024	.....	
Hughes 4	Sec. 4, Wm. Teer Sur.	8-23-26	2180-	3000				
Hughes 6	Sec. 4, Wm. Teer Sur.	10- 8-26	2040-2181	275				
Hughes 7	Sec. 4, Wm. Teer Sur.	10-11-26	2039-2048	750	529.9	85,687	3495.1	24.5
Humble Oil & Refining Co.								
Burleson 1	Sec. 100, T. C. Jones Sur.	9- 7-26	2155-2190	217				
Burleson 2	Sec. 100, T. C. Jones Sur.	9-23-26	2121-2185	141				
Burleson 3	Sec. 100, T. C. Jones Sur.	9-30-26	2158-2185	105				
Burleson 4	Sec. 100, T. C. Jones Sur.	10- 8-26	2160-2186	33	127.0	6,855		
Ricker & Dodson 1	Sec. 5, Blk. R, Denton Sur.	9-15-26	2049-2082	165	21.0	3,665	144.0	20.8
Independent Oil & Gas Co.								
Burleson 1	Sec. 100, T. C. Jones Sur.	4- 8-26	2168-2210	10	0	43	.....	
Burleson 2	Sec. 100, T. C. Jones Sur.	9-12-26	2308-2316	1410				
Burleson 4	Sec. 100, T. C. Jones Sur.	11- 2-26	2315-	140	243.2	41,035	1306.8	30.6
Burleson 3	Sec. 100, T. C. Jones Sur.	10- 8-26	2172-2215	60	11.0	399	.....	
Bryant-Moore 1	Sec. 86, C C S D & R G N G	10-28-26	2340-2472	80	50.7			
Taylor 1	Sec. 6, H. T. Sapp Sur.	2-24-26	2038-2045	135				
Taylor 2	Sec. 6, H. T. Sapp Sur.	Detailed Data Missing					.....	
Taylor 4	Sec. 6, H. T. Sapp Sur.	9- 2-26	2026-2046	325			.....	
Taylor 5	Sec. 6, H. T. Sapp Sur.	Recompleting	2098-2166	....			.....	
Taylor 9	Sec. 6, H. T. Sapp Sur.	11- 1-26	2068-2095	150	620.1		.....	
Taylor 6	Sec. 6, H. T. Sapp Sur.	9-16-26	2029-2208	41				
Taylor 10	Sec. 6, H. T. Sapp Sur.	11-17-26	2080-2180	210	147.5			
Wooley 1	Sec. 3, Blk. R, G C & S F Sur.	8-17-26	2025-2096	120	5.0		135.0	
Wooley 2	Sec. 3, Blk. R, G C & S F Sur.	9- 3-26	2034-2160	600			115.0	
Wooley 3	Sec. 3, Blk. R, G C & S F Sur.	10-17-26	2147-2160	397	837.9			
Wooley 4	Sec. 3, Blk. R, G C & S F Sur.	10-28-26	2145-2238	90	37.5	791	52.5	15.7
McMan Oil & Gas Co.								
Baker 1	Sec. 8, Blk. R, Grooms Sur.	9-16-26	2145-2167	30	5.0		25.0	
Weatz Oil Corp.								
Sherk 1	Sec. 35, Blk. 1, M K & T Sur.	10-26-26	2329-2331	600	222.9		377.1	
Texas Pacific Coal & Oil Co.								
Sherk 1	Sec. 5, Blk. 3, M K & T Sur.	9- 9-26	2163-2185	150				
Sherk 2	Sec. 5, Blk. 3, M K & T Sur.	10-17-26	2135-2185	110				
Sherk 4	Sec. 5, Blk. 3, M K & T Sur.	10-26-26	2122-2203	25	117.7		167.3	
Republic Production Co.								
Baker 1 (Discovery)	Sec. 8, Blk. R, Grooms Sur.	9-30-25	2161-2220	55	12.9	6,456	42.1	153.3
Baker 2	Sec. 8, Blk. R, Grooms Sur.	6- 5-26	2190-2252	25	.0	4,694	.....	
Baker 3	Sec. 8, Blk. R, Grooms Sur.	.....	2250-2281	15	25.8	4,854	.....	
Baker 4	Sec. 8, Blk. R, Grooms Sur.	10- 1-26	2220-2266	90	48.1	2,732	41.9	65.2
Roxana Petroleum Corp.								
Bowen 1	Sec. 6, G C & S F Sur.	9- 7-26	2062-2133	170	65.0	4,113	105.0	39.1
Bowen 2	Sec. 6, G C & S F Sur.	9-17-26	2116-2215	172	94.4	9,094	77.6	117.1
Bowen 3	Sec. 6, G C & S F Sur.	8-28-26	2075-2077	960	352.9	20,810	607.1	34.2
Estep 1	Sec. 18, Blk. 3, M K & T	8-15-26	2207-2250	211	63.4	6,330	147.6	42.9
Hughes 1	Sec. 4, Wm. Teer Sur.	9-15-26	2160-2164	237	131.6	11,755	105.4	111.5
Hughes 2	Sec. 4, Wm. Teer Sur.	11-10-26	2160-	798	903.6		.....	
Hughes 4	Sec. 4, Wm. Teer Sur.	11-15-26	2145-	720	1071.8		.....	
Sun Oil Co.								
Burleson 1	Sec. 100, T. C. Jones Sur.	8-15-26	2112-2167	20				
Burleson 5	Sec. 100, T. C. Jones Sur.	9-18-26	2067-2131	75				
Burleson 6	Sec. 100, T. C. Jones Sur.	9- 3-26	2070-2135	60	70.9	6,391	84.1	75.9
Burleson 2	Sec. 100, T. C. Jones Sur.	8-26-26	-2140	218				
Burleson 3	Sec. 100, T. C. Jones Sur.	9- 2-26	2070-2117	225				
Burleson 4	Sec. 100, T. C. Jones Sur.	9-18-26	2085-2129	85	162.9	15,381	365.1	42.1
The Texas Co.								
Burleson 1	Sec. 100, T. C. Jones Sur.	9-28-26	2157-2189	150	79.1			
Burleson 2	Sec. 100, T. C. Jones Sur.	8-26-26	2174-2230	70	16.9		53.1	
Burleson 3	Sec. 100, T. C. Jones Sur.	10-14-26	2165-2204	100	35.6		64.4	
Burleson 4	Sec. 100, T. C. Jones Sur.	10-10-26	2180-2205	73	31.8		41.2	
King 1	Sec. 11, Block 3½	9- 9-26	1996-2028	30	34.4	2,955	.....	
King 3	Sec. 11, Blk. 3½	8-18-26	2045-2056	893	235.9	29,252	657.1	44.5
King 4	Sec. 11, Blk. 3½	9- 3-26	2049-2072	362	269.2	29,001	.....	
King 5	Sec. 11, Blk. 3½	11- 8-26	2156-	100	237.2	2,024	.....	
King 8	Sec. 11, Blk. 3½	10-18-26	2004-2128	75	71.0	1,711	4.0	
King 9	Sec. 11, Blk. 3½	10-12-26	2010-2150	500	127.1	21,359	372.9	57.8
King 2	Sec. 85, Blk. X	9-15-26	2301-2355	100	71.4	3,561	28.6	12.4
King 6	Sec. 85, Blk. X	9-29-26	2301-2352	70	51.9	3,063	18.1	16.9
King 7	Sec. 85, Blk. X	10- 1-26	2302-2330	98	40.5	2,948	57.5	51.2
King 10	Sec. 85, Blk. X	11-12-26	2337-	103	64.0	448	39.0	11.4
King 11	Sec. 85, Blk. X	Detailed Data Missing			96.3	289	.....	
Union Land 1-F	Sec. 31, Blk. 35, H & T C	9-16-26	3014-3018	25	11.2	588	13.8	42.6
Tidal Oil Co.								
University 1	Sec. 34, Blk. 30, Crane Co.	9-15-26	3015-3050	150	50.0		100.0	
Magnolia Petroleum Co.								
Church & Fields 1	Sec. 34, Blk. 30, Crane Co.	4-19-26		190	55.0		135.0	
University 2	Sec. 34, Blk. 30, Crane Co.	10-12-26	3001-3038	125	107.1		17.9	
O'Keefe-Collett 1	Sec. 34, Blk. 30, Crane Co.	9- 3-26	2983-3051	120	102.2		17.8	
Gulf Production Co.								
Baker 1	Sec. 8, Blk. R, Grooms Sur.	6-23-26	2172-2224	30	7.0		23.0	
Baker B-1	Sec. 7, Blk. R, Grooms Sur.	10-28-26	2170-2270	85	45.0		40.0	
McElroy 1	Sec. 203, Blk. F,CCSD&RGNG	7-21-26	2728-2750	600	608.8			
McElroy 3	Sec. 203, Blk. F.	9- 1-26	-2818	265	162.8		102.2	
Crier-McElroy 1	Sec. 198, Blk. F.	10- 8-26	2674-2787	2880	2606.2		273.8	
Crier-McElroy 2	Sec. 198, Blk. F.	10-28-26	2727-2888	650	387.9		262.1	
Crier-McElroy 3	Sec. 198, Blk. F.	10-27-26	2741-2850	206	136.6		69.4	
Crier-McElroy A-1	Sec. 198, Blk. F.	10-20-26	2716-2819	977	897.7		79.3	
Marland Oil Co. of Texas								
Benton Land 1	Sec. 1, J. Prater Sur.	5- 9-26	2348-2363	100	10.0	3,185	90.0	35.3
Burleson A-1	Sec. 4, Blk. R, G C & S F	7-10-26	2124-2164	35	15.0	2,862	20.0	14.3
Burleson A-2	Sec. 4, Blk. R, G C & S F	9-19-26	2208-2250	10	5.0	158	5.0	31.6
Burleson A-3	Sec. 4, Blk. R, G C & S F	Detailed Data Missing			11.0	378	.....	
Burleson 2	Sec. 100, T. C. Jones Sur.	5- 5-26	2178-2230	50	Off	1,846	.....	
Burleson 3	Sec. 100, T. C. Jones Sur.	5- 2-26	2111-2140	225	Off	16,060	.....	
Burleson 4	Sec. 100, T. C. Jones Sur.	7- 1-26	2165-2225	25	21.4	1,398	3.6	38.8
Burleson 5	Sec. 100, T. C. Jones Sur.	7- 6-26	2107-2146	220	70.7	16,079	149.3	10.7

Well Completions and Performance Data to Nov. 17, for Crane and Upton Counties, Texas

(Continued)

Company—Well	Location	Date Comp.	Pay Zecord	Initial Prok.	12-17-26 Prod.	Total Prod. to 11-17-26	Barrels Decline	Bbls. Produced Per Bbl. Decline
Burleson 6	Sec. 100, T. C. Jones Sur.	7- 7-26	2114-2145	200	60.0	12,980	140.0	92.7
Burleson 7	Sec. 100, T. C. Jones Sur.	7-10-26	2096-2130	265	132.1	29,008	132.9	21.8
Burleson 8	Sec. 100, T. C. Jones Sur.	7-10-26	2117-2152	850	181.1	41,870	668.9	62.5
Burleson 9	Sec. 100, T. C. Jones Sur.	9- 4-26	2113-2153	46	10.0	1,392	36.0	38.6
Burleson 10	Sec. 100, T. C. Jones Sur.	8-21-26	2132-2185	310	49.8	11,880	260.2	45.6
Burleson 11	Sec. 100, T. C. Jones Sur.	8-26-26	2195-2250	130	34.2	4,001	95.8	41.7
Burleson 12	Sec. 100, T. C. Jones Sur.	8-24-26	2084-2130	210	93.5	9,529	116.5	81.7
Burleson 13	Sec. 100, T. C. Jones Sur.	9- 3-26	2120-2140	50	33.7	4,004	16.3	24.5
Burleson 14	Sec. 100, T. C. Jones Sur.	9- 7-26	2132-2155	170	38.7	3,916	131.3	29.8
Burleson 15	Sec. 100, T. C. Jones Sur.	9- 3-26	2095-2125	150	50.8	2,942	99.2	29.6
Burleson 16	Sec. 100, T. C. Jones Sur.	9- 3-26	2095-2115	150	125.7	7,764	124.3	62.4
Burleson 17	Sec. 100, T. C. Jones Sur.	9- 3-26	2087-2128	45	36.1	4,454	8.9	50.0
Burleson 18	Sec. 100, T. C. Jones Sur.	9- 2-26	2080-2131	155	59.8	6,706	95.2	70.4
Burleson 19	Sec. 100, T. C. Jones Sur.	9- 9-26	2090-2174	70	29.5	3,086	40.5	76.1
Burleson 20	Sec. 100, T. C. Jones Sur.	9- 9-26	2125-2185	50	42.1	3,050	7.9	38.6
Burleson 21	Sec. 100, T. C. Jones Sur.	9-21-26	2115-2185	25	10.0	1,457	15.0	97.1
Burleson 22	Sec. 100, T. C. Jones Sur.	9-22-26	2105-2250	110	96.0	4,414	14.0	31.5
Burleson 23	Sec. 100, T. C. Jones Sur.	9-21-26	2120-2150	200	194.2	11,141	5.8	192.0
Burleson 24	Sec. 100, T. C. Jones Sur.	9-21-26	2160-2173	100	70.7	3,004	29.3	10.2
Burleson 25	Sec. 100, T. C. Jones Sur.	Detail on 2 Wells Missing			56.4	2,898	....	....
Burleson 26	Sec. 100, T. C. Jones Sur.				29.5	1,573	....	....
Burleson 27	Sec. 100, T. C. Jones Sur.	10-28-26	2125-2175	160	116.7	1,543	43.3	35.6
Burleson 28	Sec. 100, T. C. Jones Sur.	10- 6-26	2140-2224	130	59.2	2,412	70.8	34.0
Burleson 29	Sec. 100, T. C. Jones Sur.	10-21-26	2150-2175	100	55.7	2,080	44.3	
Burleson 30	Sec. 100, T. C. Jones Sur.	Detailed Data Missing			41.8	1,643	....	....
Burleson 31	Sec. 100, T. C. Jones Sur.	10-24-26	2175-2190	200	104.0	2,730	96.0	28.4
Burleson 32	Sec. 100, T. C. Jones Sur.	Detailed Data Missing			52.5	105	....	....
Burleson 33	Sec. 100, T. C. Jones Sur.	10-11-26	2150-2167	445	37.5	7,195	407.5	17.6
Estep 1	Sec. 18, Blk. 3, M K & T	Detail on 2 Wells Missing			20.8	145	....	
Estep 2	Sec. 18, Blk. 3, M K & T				35.4	283	....	
Estep 3	Sec. 18, Blk. 3, M K & T	11- 7-26	2321-	100	85.0	1,137	15.0	75.8
Estep 5	Sec. 18, Blk. 3, M K & T	10-27-26	2325-2326	1450	574.2	14,020	875.8	16.0
Estep 6	Sec. 18, Blk. 3, M K & T	11- 5-26	2327-2335	2160	1050.4	15,055	1109.6	13.5
Estep 7	Sec. 18, Blk. 3, M K & T	Detailed Data Missing			33.2	377	....	....
Sanger 1	Sec. 1, S. H. King Sur.	3-20-26	2208-2230	70	10.7	3,973	59.3	66.9
Sanger 2	Sec. 1, S. H. King Sur.	5- 2-26	2180-2225	35	5.0	2,045	....	
Sanger 3	Sec. 1, S. H. King Sur.	7- 5-26	2180-2226	40	10.7	1,761	29.3	60.1
Sanger 4	Sec. 1, S. H. King Sur.	7- 1-26	2157-2225	40	10.7	1,833	29.3	62.5
Sanger 5	Sec. 1, S. H. King Sur.	7- 5-26	2164-2215	50	10.0	2,356	40.0	58.9
Sanger 6	Sec. 1, S. H. King Sur.	7-11-26	2194-2228	1200	262.1	48,651	997.9	48.7
Sanger 7	Sec. 1, S. H. King Sur.	7-20-26	2224-2278	100	15.0	4,403	85.0	51.8
Sanger 8	Sec. 1, S. H. King Sur.	8- 2-26	.....	225	49.5	12,528	175.5	71.3
Sanger 9	Sec. 1, S. H. King Sur.	Detailed Data Missing		....	95.4	6,264		
Sanger 10	Sec. 1, S. H. King Sur.	9-16-26	2208-2247	70	15.0	1,445	55.0	26.2
Sanger 11	Sec. 1, S. H. King Sur.	9-16-26	2176-2260	35	51.7	4,366	....	
Sanger 12	Sec. 1, S. H. King Sur.	9-22-26	2205-2257	50	68.8	2,834	....	
Sanger 13	Sec. 1, S. H. King Sur.	Detailed Data Missing		....	36.4	2,834	....	
Sanger 14	Sec. 1, S. H. King Sur.	10-13-26	2185-2270	20	17.1	1,064	2.9	36.6
Sanger 15	Sec. 1, S. H. King Sur.	10- 6-26	2200-2250	125	63.8	5,659	61.2	92.4
Hughes B-1	Sec. 2, J. Prater Sur.	7- 7-26	.....	65	5.0	2,077	60.0	34.6
Westbrook et Al.								
Hendricks 1	Sec. 42, Blk. 5, Winkler Co.	11-12-26	-3005		129.2			

tempt has been made to do so in this instance. It has been found in most fields that the curve of production drops from the initial yield stage on a slanting line to a level which for want of a better term will be called the "breaking point." After the breaking point is reached the production curve will flatten out unless some unusual condition, such as deeper drilling or shooting the well with nitroglycerin, brings about the equivalent of a new initial production stage. The breaking point is reached about the time the rock pressure in the well drops to the point where it is only slightly above atmospheric pressure.

The barrels produced per barrel of decline being known, it is possible to project future production with considerable accuracy after well performance has indicated the length of time generally required for wells to reach the breaking point. This is because of the fact that until the breaking point is reached the barrels produced per barrel of decline will remain fairly constant after a short experience period.

Mathematical calculation, of course, completes the theoretical projecting of future production. It is only necessary to multiply the present production figure, less the assumed breaking point, by the barrels produced per barrel of decline to approximate the yield down to the breaking point. After reaching the breaking point the curve would be carried forward over the period of commercial production expectancy without any further breaking point to be taken into consideration.

Gasoline Consumption On Coast Gains

LOS ANGELES, Nov. 26.—Taxes were paid on 672,809,734 gallons of gasoline in California the first nine months of 1926 against 606,041,900 gallons during the same period of 1925, an increase of 66,767,834 gallons.

The Standard Oil Co. of California continues as an easy leader in point of gallonage in the state with Shell Co. coming second, Richfield Oil Co. third and Union Oil Co. fourth, very closely followed by Associated Oil Co. Practically every one of the larger companies showed increases during the third quarter over the second quarter.

The record by companies, those paying taxes on more than 3,000,000 gallons for the three months, follows:

Company	Gallons
Standard Oil Co.	63,809,268
Shell Co.	39,193,165
Richfield Oil Co.	34,618,168
Union Oil Co.	26,534,496
Associated Oil Co.	25,629,232
California Petroleum Corp.	12,342,551
General Petroleum Corp.	9,711,915
Pan American	8,624,272
Wilshire Oil Co.	3,788,746
Marine Corp.	3,738,384

Totals by quarters for the state for 1925 and 1926 follow:

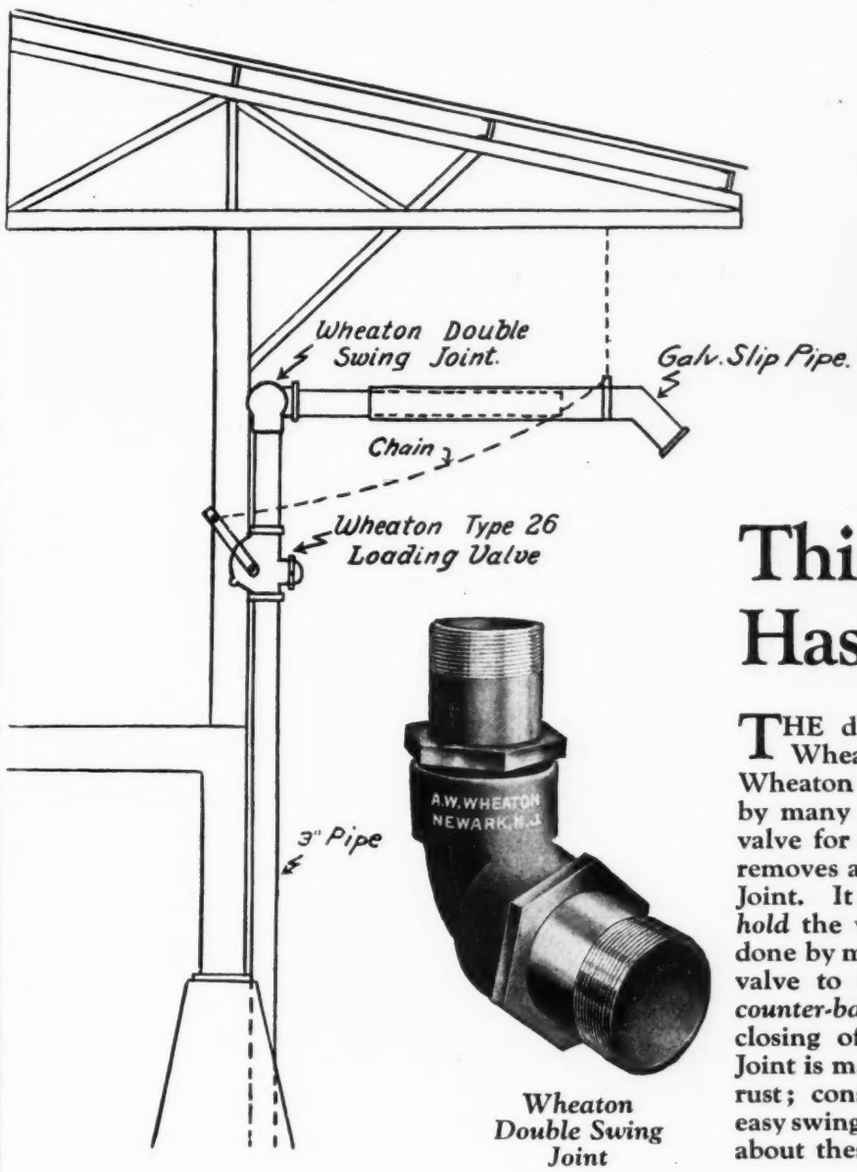
	1925 gallons	1926 gallons
First quarter	172,272,538	199,495,068
Second quarter	203,721,510	228,400,144
Third quarter	220,047,852	244,914,522
Fourth quarter	216,059,862	.....
1925 total	812,101,762	

College Chums Buy Jobbing Business

READING, PA., Nov. 26.—David R. Demaree, formerly on the sales staff of the Tide Water Oil Sales Corp., and Douglass R. Van Olinda, formerly district manager in eastern Pennsylvania for the Cities Service Co., have recently purchased the Blue Seal Oil Co., Inc., which was formerly the Gold Seal Oil Co., Reading, Pa.

Mr. Demaree is president and sales manager and Mr. Van Olinda is secretary, treasurer and operating manager. The company owns and operates several filling stations here and in Pottstown, Pa., in addition to its wholesale business in those cities.

Both men were students at Princeton where they met 10 years ago.



Wheaton Double Swing Joint

Wheaton Type 26 Loading Valve

This Installation Has Proved Right

THE diagram at the left shows how the Wheaton Type 26 Loading Valve and the Wheaton Double Swing Joint are installed by many engineers. Type 26 is a straight valve for mid-line location, which position removes all pressure from the Double Swing Joint. It is *self-closing*—the operator must *hold* the valve open while loading. This is done by means of a chain extending from the valve to the tank-truck. Also Type 26 is *counter-balanced*, which assures slow, smooth closing of the valve. The Double Swing Joint is made from a brass alloy that cannot rust; consequently its close, smooth fit and easy swinging action *last*. Let us tell you more about these two Wheaton *quality* products.

A. W. WHEATON BRASS WORKS, NEWARK, N. J.

Wheaton

Compilation Of Mid-Continent Refinery Operations

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National Petroleum News

Mid-Continent Refinery Operations Week Ended Nov. 26 (By Telegraph)

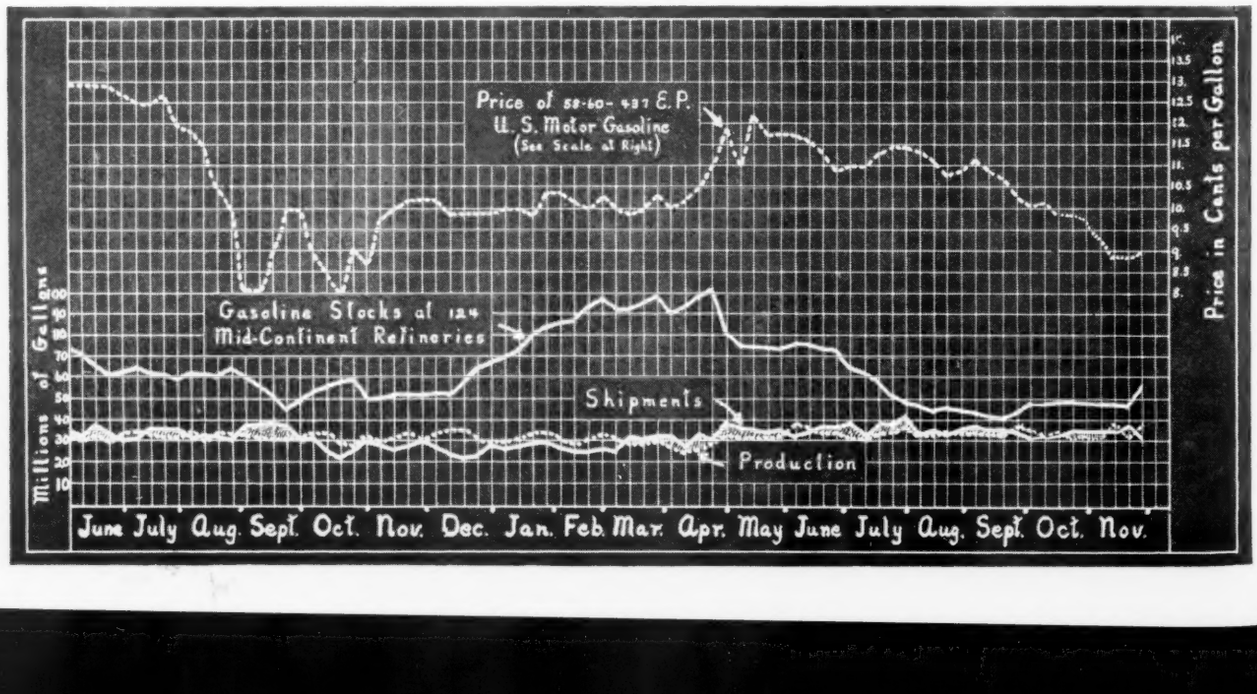
	Kansas	Oklahoma	North and Cent. Texas	North La.-Ark.	Total Week Ended Nov. 26	Total Week Ended Oct. 2
Plants Reporting	23	46	41	14	124	12
Crude Cap. (Bbls.)	98,200	165,900	144,300	53,700	464,100	462,10
Cracking Capacity	21,000	45,800	15,700	20,200	102,750	102,75
Da. Av. Crude Runs	62,331 — 3.1	97,340 — 5.3	60,143 — 9.6	53,510 + 2.0	273,324 — 4.5	277,48
Da. Av. Other Oils	3,351 —48.5	—807 ..	4,663 + 21.3	1,251 —15.8	8,458 — 22.8	10,33
GASOLINE—Gallons						
Stocks Nov. 19	9,258,154	27,714,203	9,115,641	2,607,034	48,695,032	49,749,16
Prod. 11-19 to 11-26	8,976,566 — 6.8	15,254,597 — 5.3	7,166,289 — 4.1	3,645,375 — 0.9	35,042,827 — 5.0	34,568,73
Ship. 11-19 to 11-26	8,968,593 — 8.8	11,045,223 —29.0	7,098,199 — 12.8	3,563,759 — 2.0	30,675,774 — 17.5	34,837,06
Stocks Nov. 26	9,266,127 + 0.1	31,923,577 +15.2	9,183,731 + 0.7	2,688,650 + 3.1	53,062,085 + 9.0	49,480,83
Ratio Sales to Prod	99.9%	72.4%	99.0%	97.8%	87.5%	100.8%
KEROSENE—Gallons						
Stocks Nov. 19	3,336,931	5,322,609	2,394,301	400,652	11,454,493	10,505,87
Prod. 11-19 to 11-26	1,643,653 —17.4	1,948,112 + 8.8	1,705,715 — 10.6	417,442 —15.0	5,714,922 — 7.5	6,208,64
Ship. 11-19 to 11-26	1,701,382 + 0.5	1,997,655 +67.0	1,951,501 + 1.0	317,436 —35.3	5,967,974 + 12.3	6,092,34
Stocks Nov. 26	3,279,202 — 1.7	5,273,066 — 0.9	2,148,515 — 10.3	500,658 +25.0	11,201,441 — 2.2	10,622,16
Ratio Sales to Prod	103.5%	102.5%	114.4%	76.0%	104.4%	98.1%
STOVE DISTILLATE—Gallons						
Stocks Nov. 19	5,805,731	6,577,071	1,514,932	233,646	14,131,380	12,458,49
Prod. 11-19 to 11-26	1,006,480 +23.5	773,509 +90.3	242,954 — 31.5	62,639 +35.8	2,085,582 + 28.6	2,791,57
Ship. 11-19 to 11-26	1,040,851 +67.7	976,511 + 0.5	509,732 +128.1	13,818 —68.5	2,540,912 + 36.6	1,563,43
Stocks Nov. 26	5,771,360 — 0.6	6,374,069 — 3.1	1,248,154 — 17.6	282,467 +20.9	13,676,050 — 3.2	13,686,64
Ratio Sales to Prod	103.4%	126.2%	209.8%	22.1%	121.8%	56.0%
GAS OIL—Gallons						
Stocks Nov. 19	6,573,213	31,098,680	11,271,459	2,864,600	51,807,952	55,360,29
Prod. 11-19 to 11-26	1,205,416 + 2.4	717,757 —64.5	1,402,949 — 19.5	2,804,785 +13.9	6,130,907 — 17.2	6,113,03
Ship. 11-19 to 11-26	1,605,358 — 5.7	1,427,093 — 3.9	2,775,159 — 7.9	2,453,732 — 1.9	8,261,342 +0.002	6,032,29
Stocks Nov. 26	6,173,271 — 6.1	30,389,344 — 2.3	9,899,249 — 12.2	3,215,653 +12.3	49,677,517 — 4.1	55,441,03
Ratio Sales to Prod	133.2%	198.9%	197.8%	87.5%	134.7%	98.7%
FUEL OIL—Gallons						
Stocks Nov. 19	14,197,445	70,725,501	12,592,716	9,911,700	107,427,362	105,497,49
Prod. 11-19 to 11-26	5,567,916 — 3.0	6,549,917 —12.2	8,388,378 —0.001	8,344,858 + 2.2	28,851,069 — 4.2	27,479,76
Ship. 11-19 to 11-26	5,729,597 + 0.3	8,262,842 —13.9	8,597,790 — 6.3	7,471,573 — 9.0	30,061,802 — 4.9	27,329,09
Stocks Nov. 26	14,035,764 — 1.1	69,012,576 — 2.4	12,383,304 — 1.7	10,784,985 + 8.8	106,216,679 — 1.1	105,648,17
Ratio Sales to Prod	102.9%	126.2%	102.5%	89.5%	104.2%	99.5%

Gasoline Produced by Various Methods, Week Ended Nov. 26

	Kansas	% of Total	Oklahoma	% of Total	Texas	% of Total	La.-Ark.	% of Total	Total	% of Total
Straight Run	6,748,126	75.2	10,321,361	67.7	5,701,675	79.6	1,361,623	37.4	24,132,785	68.9
Cracked	1,659,340	18.5	4,132,128	27.1	1,359,740	19.0	2,008,736	55.1	9,159,944	26.1
Natural	569,100	6.3	801,108	5.2	104,874	1.4	275,016	7.5	1,750,098	5.0
Total	8,976,566		15,254,597		7,166,289		3,645,375		35,042,827	

+ or — columns are % change over previous week.

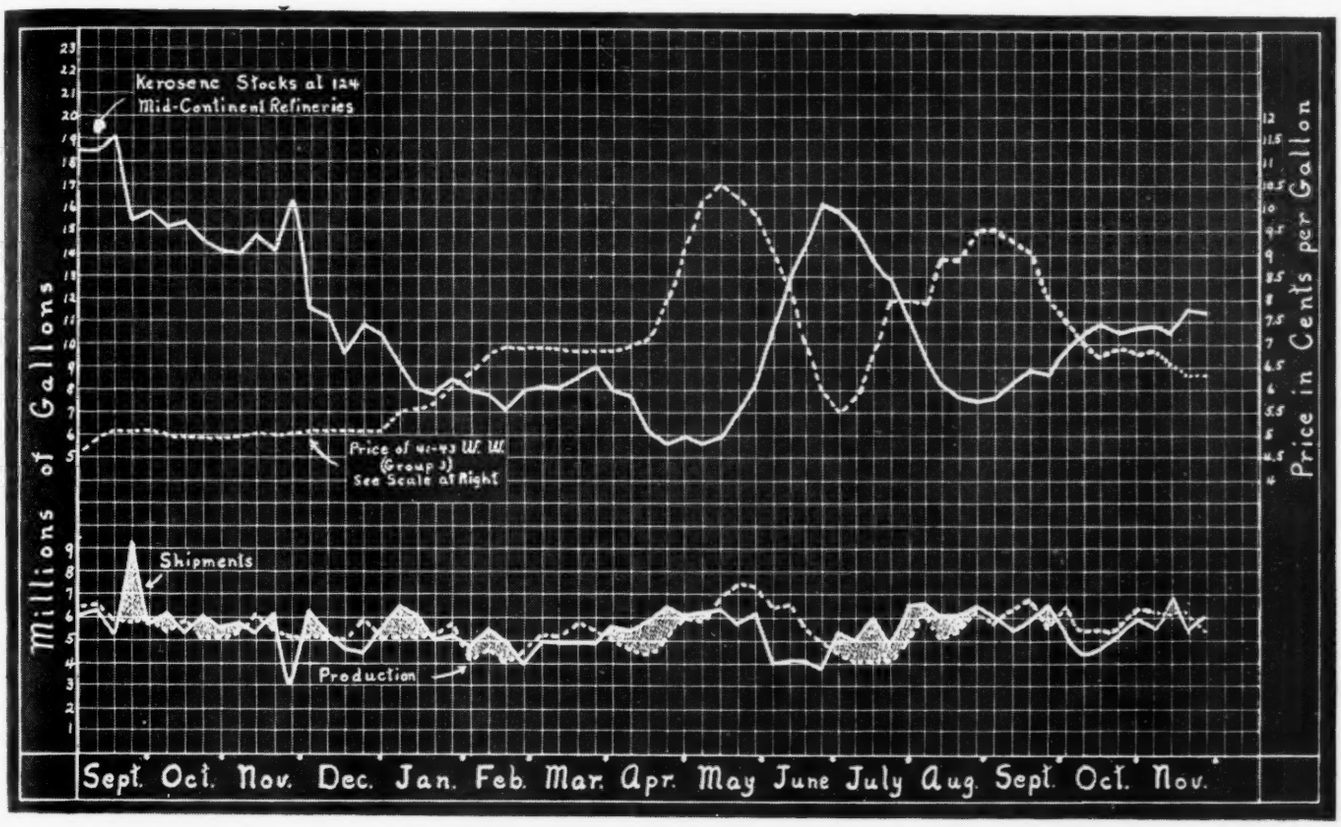
GASOLINE


Price of 58-60- 437 E.P.
U. S. Motor Gasoline
(See Scale at Right)
Gasoline Stocks at 124
Mid-Continent Refineries
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov.

Barometer of Mid-Continent Refinery Market—Week Ending Nov. 26

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 124 Plants to National Petroleum News

KEROSENE


Kerosene Stocks at 124 Mid-Continent Refineries
Price of 41-43 W. W. (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov.

Gasoline Shipments Fall Sharply; Stocks Rise

Staff Special—By Telegraph

TULSA, Nov. 30

SHIPMENTS of gasoline from 124 Mid-Continent refineries reporting weekly operations figures to National Petroleum News, fell 7,000,000 gallons in the week ended Nov. 26, compared with the preceding week. Oklahoma refiners' shipments fell 4,500,000 gallons. Texas refiners' shipments decreased 1,000,000 gallons lower. North Louisiana-Arkansas shipments were 100,000 gallons lower.

This fall in gasoline shipments resulted in stocks on hand rising to 53,062,085 gallons on Nov. 26. This total is approximately 300,000 gallons above the total stocks on hands at the end of the corresponding week last year when virtually the same group of plants held 52,750,452 gallons.

Crude charges to stills were reduced approximately 12,000 barrels daily average for the week to 273,324 barrels daily average. The reduction in crude runs accounted for a reduction in production of all the major commodities except heating distillates. Gasoline production was 1,800,000 gallons less than the previous week. Kerosene production was down 400,000 gallons. Stove distillate production increased 400,000 gallons, while gas oil production decreased approximately 1,300,000 gallons and fuel oil output was off 1,300,000 gallons.

Total shipments of kerosene were increased slightly while those of distillates were increased 600,000 gallons. Fuel oil shipments were slightly lower yet with the exception of gasoline stocks of all major commodities were reduced.

Recent export buying of kerosene is reflected in this week's tabulation of Texas plant operations. Production was almost stationary while shipments were up 800,000 gallons. Production of stove distillates in Texas were cut 100,000 gallons last week while shipments increased almost 300,000 gallons. Oklahoma refiners increased distillate production 300,000 gallons, while shipments were almost unchanged.

Wolverine Stations Incorporates

SOUTH HAVEN, MICH.—The Wolverine Service Stations, of which A. D. Dubuisson has been president and treasurer, has just incorporated under Michigan laws and appointed a common law trust. Officers are: Mr. Dubuisson, president; John Parnham, vice president; and L. Dubuisson, secretary.

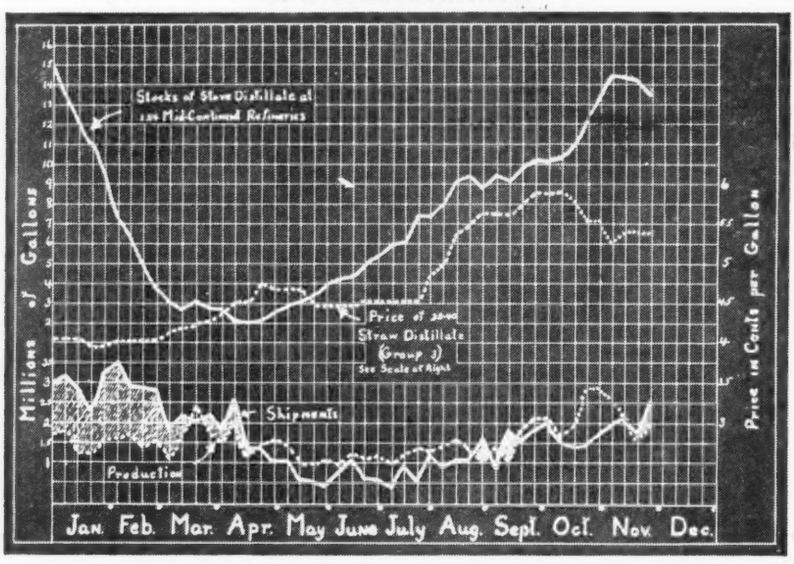
Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended Nov. 26. Change in stocks figured from Oct. 29.

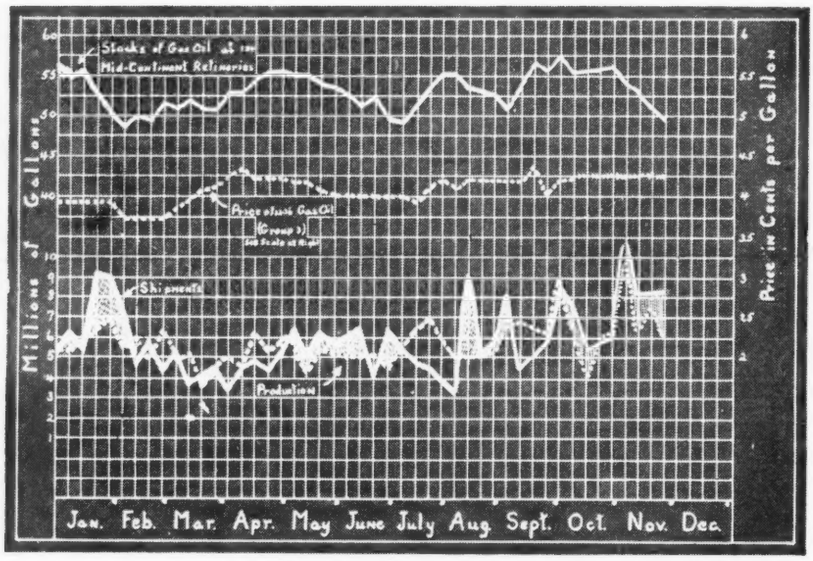
	Gallons
Gasoline	
Production	141,875,964
Shipments	138,294,712
Net change in stocks	+3,581,252
Ratio sales to production	97.5%
Kerosene	
Production	24,383,008
Shipments	23,803,733
Net change in stocks	+579,275
Ratio sales to production	97.6%
Stove Distillate	
Production	8,321,171
Shipments	8,331,761
Net change in stocks	—10,590
Ratio sales to production	100.1%
Gas Oil	
Production	29,368,169
Shipments	35,131,687
Net change in stocks	—5,763,518
Ratio sales to production	119.6%
Fuel Oil	
Production	115,909,924
Shipments	115,341,466
Net change in stocks	+568,458
Ratio sales to production	99.5%

Barometer of Mid-Continent Refining Market—Week Ending Nov. 26.

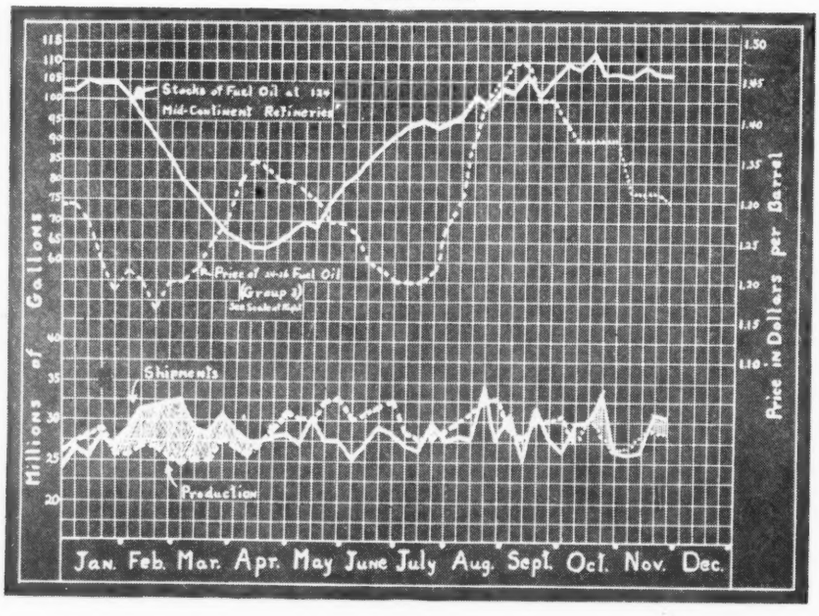
STOVE DISTILLATE


Stocks of Stove Distillate at 126 Mid-Continent Refineries
Price of 30-60 Straw Distillate (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

GAS OIL


Stocks of Gas Oil at 126 Mid-Continent Refineries
Price of 36-46 Gas Oil (Group 3)
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

FUEL OIL


Stocks of Fuel Oil at 126 Mid-Continent Refineries
Price of 26-36 Fuel Oil (Group 2)
Shipments
Production
Millions of Gallons
Price in Dollars per Barrel
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

Automobile Output Falls Sharply in October

WASHINGTON, Nov. 27.—October production of motor vehicles in the United States, as reported to the Department of Commerce, was 331,738 of which 288,848 were passenger cars and 42,890 were trucks, as compared with 397,341 passenger cars and trucks in September and 438,419 in October, 1925. Production figures since Jan. 1, 1925, follow:

	Passenger Cars		
	Total	U. S.	(1) Canada
1925			
January	213,851	205,550	8,301
February	253,955	243,176	10,779
March	334,214	321,200	13,014
April	393,262	377,747	15,515
May	384,548	366,197	18,351
June	366,510	352,261	14,249
July	360,124	348,984	11,140
August	223,517	216,087	7,430
September	274,227	263,855	10,372
October	408,017	394,096	13,921
Total (10 mos.)	3,212,225	3,089,153	123,072
November	337,435	328,694	8,741
December	286,141	278,643	7,498
Total (year)	3,835,801	3,696,490	139,311
1926			
January	284,703	272,922	11,781
February	334,524	319,763	14,761
March	399,105	381,116	17,989
April	401,836	383,907	17,929
May	394,569	373,140	21,429
June	358,365	339,547	18,818
July	329,950	316,997	12,953
August	*393,040	380,258	*12,782
September	*363,537	*350,913	*12,624
October	.....	288,848	(2)
Total (10 mos.)	.....	3,407,411	.....

	Trucks		
	Total	U. S.	(1) Canada
1925			
January	28,203	26,638	1,565
February	34,482	32,789	1,693
March	45,180	43,091	2,089
April	47,984	46,408	1,576
May	45,719	43,831	1,888
June	38,151	36,357	1,794
July	41,870	40,025	1,845
August	37,850	36,364	1,486
September	60,482	58,002	2,480
October	46,013	44,323	1,690
Total (10 mos.)	425,934	407,828	18,106
November	40,048	37,811	2,237
December	34,488	32,757	1,731
Total (year)	500,470	478,396	22,074
1926			
January	33,461	29,763	3,698
February	41,685	37,608	4,077
March	49,233	44,848	4,385
April	53,887	50,314	3,573
May	*51,333	*47,828	3,505
June	*47,115	*44,182	*2,933
July	*41,921	*39,666	*2,255
August	*47,907	*45,404	*2,503
September	*51,299	*46,428	4,871
October	.....	42,890	(2)
Total (10 mos.)	.....	428,931	.....

*Revised.

(1) Reported by Dominion Bureau of Statistics since Jan. 1, 1926.

(2) Not yet available.

Southern Auto Demand Lower Than Normal

NEW YORK, Nov. 27.—Automotive Industries this week says:

Sales are seasonally slack in most parts of the country. Southern demand, which to a slight extent supports the winter market for motor vehicles, is below par just now, a condition which was generally expected.

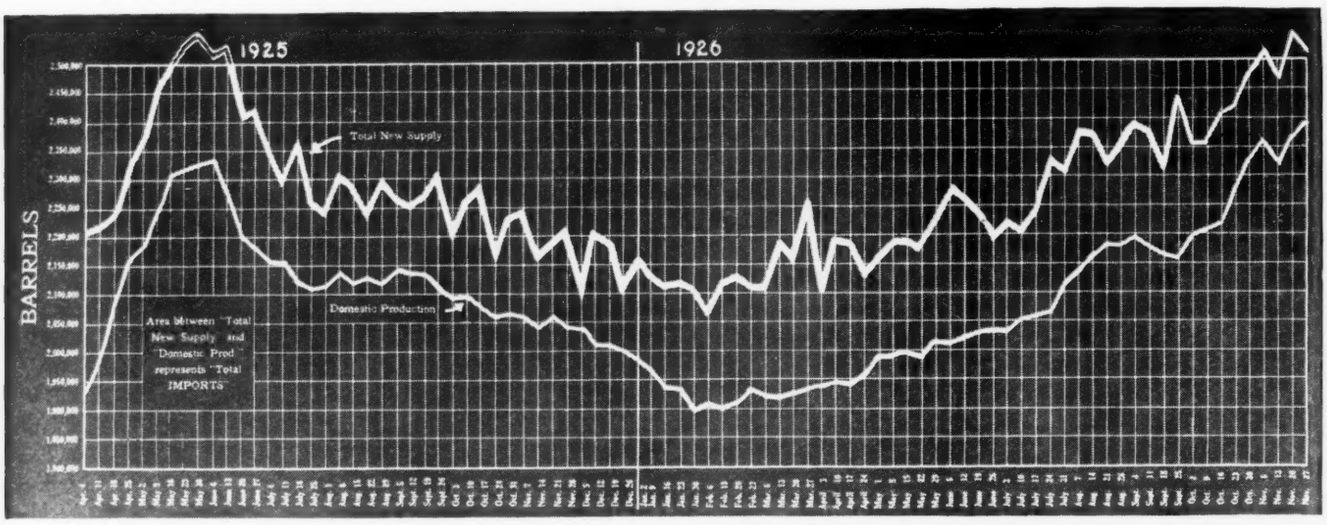
Dealers' stocks of new cars and probably also of used cars are higher than a year ago at this time, but so far as new cars are concerned the condition is partly explained by the greater number of lines and body models now carried.

Make *1* barrel of crude do in your refinery and show in your profit sheet what *2* barrels did before

Only the Dubbs Cracking Process can do this for you as it is doing it for others

Universal Oil Products Company
Owners of the Dubbs Process
310 South Michigan Ave
Chicago, Illinois

Daily Average Crude Oil Production and Imports



Daily average gross crude output of United States, by fields, for week ending with dates given below, as compiled by American Petroleum Institute.

Production Sumary

	Nov. 27	Nov. 20
Production East of the Rockies	1,737,350	1,724,750
Increase		12,600
Total Production in U. S.	2,391,250	2,370,450
Increase		20,800
Crude Oil Imports	137,143	248,000
Decrease		110,857
Total Crude Supply	2,528,393	2,618,450
Decrease		90,057

OKLAHOMA

	Nov. 27	Nov. 20
North Braman	29,100	27,100
South Braman	5,550	5,500
Blackwell	3,750	3,750
Hubbard	2,650	2,600
Thomas	2,250	2,050
Tonkawa	31,250	33,400
Garber	23,350	23,700
Burbank	44,250	44,900
Osage, outside Burbank	34,400	34,400
Watchorn	3,400	3,750
Cushing	21,400	21,400
Yale Jennings	13,200	13,300
Davenport	5,050	5,350
Bristow-Slick	26,850	26,900
North Okmulgee	17,400	17,400
Lyons-Deaner	3,900	3,900
Stroud	1,950	1,950
Cromwell	14,650	14,950
Papoose	9,250	9,400
Wewoka	24,300	24,650
Seminole	111,050	112,950
Duncan district	7,100	7,100
Graham	8,900	8,850
Fox	1,950	1,950
Healdton	15,000	15,000
Scholem-Alechem	9,050	9,000
Hewitt	10,950	11,000
Others	66,500	66,200
Total Oklahoma	548,400	552,400
Decrease		4,000

KANSAS

	Nov. 27	Nov. 20
Greenwood County	44,900	45,150
Florence-Covert	1,900	1,900
Peabody-Elbing	4,100	4,100
Eldorado-Tonawanda	13,550	13,600
Augusta-Fox-Bush	4,950	4,950
Rainbow Bend	3,300	3,250
Russell	4,300	4,250
Churchill	10,600	8,100
Others	30,000	29,900
Total Kansas	117,600	115,200
Increase		2,400

NORTH LOUISIANA

Homer	5,450	5,450
Haynesville	8,750	8,750
Caddo, light	10,150	10,450
Caddo, heavy	5,000	3,450
De Soto, Red River	4,100	4,100
Elm Grove	600	500
Bellevue	1,700	1,750
Cotton Valley	6,900	6,950
Urania	13,800	14,050
Total North Louisiana	56,450	55,450
Increase		1,000

ARKANSAS

El Dorado	6,650	6,600
Smackover, light	13,300	13,200
Smackover, heavy	111,750	114,200
Stephens	1,550	1,500
Nevada	1,900	1,900
Lisbon	6,600	6,650
Total Arkansas	141,750	144,050
Decrease		2,300

NORTH TEXAS

	Nov. 27	Nov. 20
Burkburnett	14,300	14,250
Electra	16,950	16,950
Iowa Park and K-M-A	4,500	4,450
Wlibarger	15,550	15,300
Montague—		
Cooke Counties	11,850	11,600
Hutchinson County	148,350	153,100
Balance Panhandle	13,950	14,500
Archer County	34,800	34,600
Others	1,300	1,300
Total North Texas	261,550	266,050
Decrease		4,500

EAST CENTRAL TEXAS

Mexia	11,300	11,250
Currie	800	800
Richland	1,400	1,400
Corsicana-Powell	24,150	24,250
Wortham	6,200	6,400
Nigger Creek	11,450	11,200
Total E. Central Texas	55,300	55,300

WEST CENTRAL TEXAS

Stephens County	10,950	11,000
Eastland County	5,850	5,550
Desdemona	1,700	1,700
Young County	8,500	8,500
Brown County	16,600	16,600
Palo Pinto County	450	450
Callahan County	3,500	3,450
Shackelford County	14,400	14,300
Reagan County	30,250	30,150
Coleman County	500	500
Crane, Upton Counties	23,500	20,900
Mitchell—		
Scurry Counties	4,000	4,000
Others	4,750	2,050
Total W. Central Tex.	124,950	119,150
Increase		5,800

SOUTHWEST TEXAS

Luling	19,650	19,750
Laredo District	16,700	16,600
Somerset	1,150	2,000
Lytton Springs	3,150	3,250
Piedras Pintas	300	250
Others	550	550
Total Southwest Texas	42,300	42,400
Decrease		100

GULF COAST

Goose Creek	7,750	7,500
Hull	20,200	20,800
Saratoga	1,250	1,200
Blue Ridge	3,100	1,550
Damon Mound	1,100	1,100
Batson	1,650	1,700
West Columbia	9,650	9,600
Humble	4,400	4,400
Pierce Junction	6,950	7,100
Sour Lake	5,700	6,350
Spindletop	90,550	79,550
Orange County	7,300	7,050
Edgerly	750	750
Evangeline	1,100	1,100
Viton	6,050	6,050
Lockport	4,100	4,050
South Liberty	4,850	4,950
Big Creek	4,350	1,350
Boling	2,150	2,100
Others	2,600	2,300
Total Gulf Coast	185,550	170,550
Increase		15,000

ROCKY MOUNTAIN

WYOMING

Salt Creek	42,200	43,000
Grass Creek	3,100	3,100
Elk Basin	800	800
Big Muddy	3,100	3,150
Lost Soldier	5,150	5,600
Rock River	2,800	2,600
Teapot Dome	700	1,000
Lance Creek	750	800
Others	2,050	2,150
Total Wyoming	60,650	62,200
Decrease		1,550

MONTANA

Cat Creek	2,550	2,600
Sunburst	14,000	14,000
Others	200	250
Total Montana	16,750	16,850
Decrease		100

COLORADO

Moffat (Craig)	3,100	2,700
Fort Collins	3,800	3,400
Florence	450	550
Others	700	750
Total Colorado	8,050	7,400
Increase		650

NEW MEXICO

Artesia	3,000	3,000
Hogback	700	750
Table Mesa	450	500
Rattlesnake	2,400	2,000
Total New Mexico	6,550	6,250
Increase		300
Total Rocky Mountain	92,000	92,700
Decrease		700

CALIFORNIA

Santa Fe Springs	45,500	45,500
Long Beach	97,000	96,000
Huntington Beach	83,000	77,500
Torrance	26,500	26,500
Dominguez	20,000	20,000
Rosecrans	14,500	14,500
Inglewood	40,000	40,000
Midway-Sunset	94,000	94,000
Ventura Avenue	56,200	57,300
Seal Beach	8,200	5,400
Others	169,000	169,000
Total California	653,900	645,700
Increase		8,200

EASTERN

Including Ill., Ind., Ky., Ohio, W. Va., Pa., and N. Y.	111,500	111,500

Seminole Unable to Hold Up Production, Earlsboro Now in Spotlight

By A. F. Hinton
N. P. N. Staff Writer

TULSA, Nov. 27

OKLAHOMA production declined slightly the past week, but remained at the high daily average of 548,115 barrels, according to National Petroleum News estimate. This was less by 3935 barrels than the estimate for the preceding week. The state's crude output has been above 500,000 barrels a day for six successive weeks. Seminole maintained its production of over 100,000 barrels for the fourth week. North Braman increased its production about 2000 barrels, and was the only active field in the state to show a gain.

Seminole average 111,000 barrels daily this week, as compared with 112,900 barrels last week, the addition of several new wells thus failing to make up for decline in older producers. The field was operated "wide open" during the week, all restrictions as to swabbing, deepening, agitating, etc., having been removed, but in only a few instances did the wells respond with increased production. A number of wells were drilled deeper into the sand without increasing their output, indicating that while there is a large sand body present, the big pay is confined to the upper 10 feet in most instances.

Several Wells Died

SEVERAL wells went dead during the week, ceasing to flow on account of failing gas pressure. In some instances they were brought back on production by swabbing and agitating, in others the gas lift was used to revive them, and still others did not respond to treatment. It is apparent that the "head" is off the Seminole pool as far as township 9-6 is concerned, and it is safe to state that wells drilled in there from now on will show noticeably smaller initial production.

Water appeared in additional wells during the week, and increased somewhat in other wells. In each case, the appearance of water was followed by a sharp reduction of oil production. Oil from other wells has been increasing in temperature, which ordinarily indicates the near approcah of water encroachment.

Water appeared also in the Searight pool, when the Prairie Oil & Gas Co. No. 2 Kinkade started cutting its oil about eight per cent. The appearance of water in this well caused it to go down about 1500 barrels in production during the ensuing 24 hours. The water also increased from six to eight per cent in the 24 hours after it first made its appearance. This well, which is making about 5000 barrels, is the second Wilcox sand well in the Searight field. The other, which discovered the Wilcox, is the F. J. Searight No. 1 Youngblood. It is making about 3500 barrels and is not known to be making any water.

The Earlsboro pool evidently is destined to get a drilling play as intensive as that at Seminole, as a large number of new locations were announced during the week, and derricks are going up rapidly on all sides of the Gypsy's Wilcox sand discovery well. At present, there are 42 operations under way in the vicinity, counting those on which no work has been done other than driving the location stake. The Gypsy well is holding up at about 2500 barrels daily and has been drilled no deeper, being still nine feet in the sand topped at 4272 feet. It is located in the NEc of 16-9-5.

Independent Oil & Gas Buys

IT was announced during the week that Independent Oil & Gas Co. had bought a half-interest in the NE¼ of 8-9-5, from the Darby Petroleum Co. for $250,000 and a well, and had made a location for No. 1 Knappenberger in the southeast corner of this quarter-section. The same company also purchased a half-interest in the adjoining 160 acres on the south, this being the SE¼ of 8. This was bought from Marland Oil Co., with reported consideration of $225,000 and a well. A location also has been made in the southeast corner of this tract. Amerada Petroleum Corp. bought a half interest in the S½ SW¼ of 4-9-5, and will drill a well on it. Consideration was not announced. Amerada also has a one-fourth interest in the farm on which the discovery well is located. Westland Oil Corp. has one-fourth and the Gypsy Oil Co. one-half.

The Texas Co. has made location for its No. 1 Esinminger, in the SEc of 5-9-5, a half-mile north of the Independent-Darby location referred to above. Sinclair has located an outlying test a mile and three-quarters north and a location east of the Gypsy discovery in its No. 1 Bryant, in the NWc S½ NW of 3-9-5. Gypsy Oil Co. has made location for its No. 2 McKinley, in the NEc SE SW of 9 and is drilling No. 1 on this farm, a quarter-mile to the south. Barnsdall Oil Co. is starting operations for its No. 1 Hearne, in the NEc NW of 15 and has made locations for No. 1 and No. 2 Pack, in the NEc and SEc, respectively, of the SE SE of 10.

An interesting wildcat showing during the past week was that of the Indian Territory Illuminating Oil Co. in its No. 1 Livingston, in the SEc NW of 15-8-6, about four miles south of Seminole production. This well had the Hunton lime at 3824 feet and at one foot made several small flows. It was shut in after placing about 200 barrels in the tanks, and additional tankage is being provided before the well will be drilled in. This well is apparently running high on structure and looks favorable for oil production.

Another interesting test is the Gypsy Oil Co. No. 1 Frazee, in the SWc NE

Drilling Operations in Okla., Kan., N. Texas & New Mexico

	Nov. 27 — Week Ending — Nov. 20									
OKLAHOMA	Loc.	Rigs	Drg.	S.D.	Total	Loc.	Rigs	Drg.	S.D.	Total
Burbank	6	11	39	...	56	7	9	36	...	52
Other Osage	9	13	61	2	85	7	16	60	2	85
Bristow-Cushing	12	17	118	11	158	8	17	119	10	154
North Oklahoma	10	24	118	52	204	14	18	127	51	210
South Oklahoma	20	29	169	41	259	22	24	189	32	267
Muskogee	...	14	54	11	79	...	10	48	19	77
Okmulgee-Bristow	1	45	145	29	220	1	57	141	34	233
Tonkawa	1	...	9	2	12	1	...	9	2	12
Seminole Dist	33	50	306	28	417	34	58	288	33	413
Total Oklahoma	92	203	1019	176	1490	94	209	1017	183	1503
KANSAS	64	68	234	96	462	63	94	227	65	449
TEXAS										
Central Tex	...	74	275	96	445	...	85	253	98	436
East Texas	...	2	19	15	36	...	7	15	16	38
Panhandle	...	153	353	92	598	...	170	343	100	613
N. Central Tex	...	88	133	35	256	...	96	141	43	280
N. Texas	...	99	172	39	310	...	76	173	46	295
Total Texas	...	416	952	277	1645	...	434	925	303	1662
GRAND TOTAL	156	687	2205	549	3597	157	737	2169	551	3614
NEW MEXICO	9	4	28	29	70	9	2	33	28	72

Completions in Oklahoma, Kansas and N. Mexico Week Ending Nov. 27

Carter County

Company	Well No.	Location	Depth	Initial Prod.
Humble	6	SWc SE SW 18-1-3W	2661–2676	1150
Humble	7	NWc SE NE 33-1-3W	3195–3258	15
Humble	8	SEc SW NE 33-1-3	2335–2634	125
Magnolia	8	NEc SE SW 34-1-3W	2570–2930	165
Magnolia	1	NWc NE SE 3-2-3W	2260–2342	245
Magnolia	2	NWc SE SE 3-2-3W	2184–2663	272
Magnolia	3	NEc SE 3-2-3W	2309–2678	120
Magnolia	4	SWc NE SE 3-2-3W	2278–2690	250
Skelly	5	NWc SW NW 23-2-3W	2425–2955	41
Magnolia	6	NEc SW NE 23-2-3W	2501–2647	100
Magnolia	3	NWc NE SE 16-2-2W	1320–1322	120
Amerada	28	SWc NE SW SE 20-5-1E	1440–1490	25
Skelly	3	SEc NW SE 30-2-3W	T.D.1052	Dry
Magnolia	1	SWc SE 15-2-2W	T.D.3493	Dry
Magnolia	1	SWc NW SW 7-6-2E	T.D 3070	Dry

Creek County

Gled	6	NWc SE SW 13-19-8	2240–2280	50
Texas	4	SWc NW SE 13-19-8	2190–2230	20
Day	3	SEc NE NE NE 6-18-12	2078–2090	7M
Magnolia	10	NWc NE SW 5-18-7	2665–2687 OWD	16, 8M
Magnolia	2	C NE SE 35-18-7	3025–3040	6M
Gypsy	18	SWc SE NE NW 1-18-11E	2071–2077	1820
Riverland	5	NEc SE SW NW 1-18-11	2120–2128	40
Mid-Cont	3	NWc NE SE NW 1-18-11	T.D.2088	1898
Crandal et al	1	CSL NE SE 32-18-11	1540–1550	30
Dixie	2	SEc 1-17-9	1755–1802	25
Turman	1	NEc NW NW 8-17-10	3005–3044	530
Cumberland et al	1	SEc 13-17-10E	1834–1854	40
Skelly	2	NEc SW SW 32-17-10	3116–3125	13
Shaffer	7	CEL NE NE 17-17-11	1975–2065	25M
Magnolia	6	CSL SW SE 32-18-7	T.D.2847 OWD	Dry
Bartlett	1	SEc SW 28-19-8	T.D.2872	Dry
Olean	1	NWc SW 33-19-9	T.D.2932	Dry
Redgraves et al	1	NWc SW NW SE 15-18-11	T.D.2475	Dry
Indep	1	NWc 4-16-10	T.D.3165	Dry
Wood	1	NWc NE 36-14-9	T.D.3705	Dry

Garfield County—Garber

Sinclair	63	SW SW NE 13-22-4W	3685–3702	170
Sinclair	64	NW SE SE NE 13-22-4W	3630–3660	300
Roxana	28	SE SW SE SW 18-22-3W	4285–4294	386
Sinclair	49	SWc NW NW 18-22-3W	3613–3665	400
Sinclair	51	SWc NW 18-22-3W	4234–4328	100
Sinclair	53	SEc SW NW NW 18-22-3W	3591–3648	325

Garfield County

Slick et al	1	C NW SE 22-21-3W	T.D.5540	Dry

Grady County—Chichasha

Hamon-Cox	1	NWc SE NW 16-3-5W	1818–1828	500
Carter	1	SEc NE NE 17-3-5W	1793–1809	87
Caithlow	2	SEc SW NW 27-3-5W	1843–1854	250
Carter	3	SWc NE 34-3-5W	1420–1430	35
Carter	1	NWc SW NW 35-3-5W	1430–1435	42

Hughes County

Johnson et al	1	SWc SE NW 32-8-11E	T.D.3961	Dry

Kay County

Palmer et al	1	NEc NW 28-26-1W	T.D.4627	Dry
Texas	4	SEc NE 20-29-1W	2755–2765	340
Comar	8	SEc NE NW 21-29-1W	3370–3371	3183, 17M
Marland	1	SWc NE NE SW 19-27-1W	3454–3482	5M
Wentz	12	NEc NW SE 28-25-1W	4307–4310	67

Love County

Magnolia	1	SEc NW SW 7-6-2E	T.D.3070	Dry

McIntosh County

Lampton et al	1	NWc SE 10-12-14E	T.D.2933	Dry

Muskogee County

Cory-Anders	1	SWc NW NE NW29-15-15E	T.D.2630	Dry
Paraffine	1	CNL NW NE 20-15-17	T.D.2272	Dry

Noble County

Mid-Cont	15	NEc SW NW 22-23-2W	T.D.2022	Dry

Okfuskee County

Derby	2	NEc NW SW 14-13-9E	T.D.3618	Dry
Blakely et al	1	NWc NE 23-12-10	T.D.3050	Dry
Riverland	1	SEc SW SW 19-11-11	2930–2942	33M
Atlantic	3	CWL NW SW 35-11-11	2500–2526	50
Eagle Picher	3	NWc NE 7-10-12	3102–3106	3M

Okmulgee County

Pine	3	NEc 9-15-14E	1532–1542	270, 3M
McCulloch	5	C SE SW 16-15-14	2357–2368	200
Texas	10	CEL SE SE 16-15-14	2307–2343	15
Clover et al	8	NEc NW NW 3-15-11	T.D.2954	Dry
Clarion	8	C SW SW 22-14-14	T.D.1876	Dry

Osage County

Keener	23	NW NE NE 15-29-10E	1056–1075	10
Texas	13	NW SE SE 21-26-6	2946–2976	120
I. T. I. O	1	NEc SW 31-25-9	1915–1925	5M
Barnsdall et al	4	NW NE NW 2-21-8	2503–2523	60

Company	Well No.	Location	Depth	Initial Prod.
S. S. Home	98	SWc NE SE 24-21-9	2110–2147	15M
S. S. Home	7	SE NW NE 5-20-11	1761–1773	45
Plymouth	3	SWc NW SW 31-25-12E	T.D.1760	Dry

Pawnee County

Devonian	3	NWc SE NW 35-22-6E	2665–2678	25

Pittsburg County

West. Natl. Gas	1	CWL E½ NW SE 36-9-16E	T.D.2550	Dry

Payne County

Magnolia	1	SEc SW 31-18-4E	3586–3596	16, 8M

Pottawatomie County

Gypsy	1	NEc NW NE 16-9-5E	4274–4281	2667

Seminole County—Seminole

Carter	2	SEc SW SW 24-9-6E	4186–4199	5160
I. T. I. O	2	NEc NW SE 26-9-6	T.D.4131	699
Tidal	4	SWc SE NW 26-9-6	4115–4150	5130
Slick	1	NWc NE 35-9-6	4010–4033	7320
Prairie	1	NEc NW NW 25-9-6	3975–3993	100

Seminole County

Empire	1	SWc 3-7-6E	3657–3663	87
Carter	1	NWc SW NW 31-10-7	T.D.3010	Dry
Amerada	3	NWc SE SE 32-8-8E	T.D.4169	Dry
Amerada	4	NEc SE SE 32-8-8E	T.D.4208	Dry
Continental	10	CEL SW SE 33-11-8	1842–1851	50
Continental	4	NW SW SE 33-11-9	4062–4155 OWD	625

Texas County

Reiter-Foster	1	C NE 10-2-11E	T.D.3502	Dry

Tulsa County

Savoy	3	CEL SE NW 7-16-14E	T.D.2234	Dry
S. S. Home	2	NEc SE NE 23-19-11E	2215–2232	40
Texas	1	NWc SE 7-16-14	1427–1434	15½M

Wagoner County

Newman	1	CEL NE SE 13-17-16E	1100–1111	4½M

KANSAS

Butler County

Empire	4	C NW SE NW 23-26-7E	2770–2775	40
Tidal	36	NEc NW NW 21-26-8E	2405–2537	30
Mid-Kans	2	NEc SW SW 3-28-6E	3068–3079	200

Chautauqua County

Prairie	8	NEc NW SE 8-34-11	1348–1399	40
Foster et al	2	C NW SE 31-32-10	T.D.1927	Dry

Cowley County

Roxana	1	NWc 28-30-3E	1803–1833	50
Shawver et al	2	NWc NE SE 17-34-3	3350–3363	75
Cosden et al	1	NWc SE 16-31-7	T.D.3160	Dry
Marland et al	3	SWc NW 18-33-3E	T.D.3560	Dry

Elk County

Ohio Fuel	2	C SW NW 13-30-8E	T.D.1972	Dry
Theta	4	SEc SW SW 23-31-10	1612–1618 OWD	15

Ellsworth County

Wrightsman	1	C SW 3-16-8W	T.D.4445	Dry

Greenwood County

Mid-Kans	8	CNL NE 30-25-9E	T.D.2900	Dry
Syndicate	5	NWc SE SE 2-22-10	2058–2109	125
Theta	17	CNL SW NW NE 17-22-10	2235–2290	45
Rhodes et al	7	CSL SW NE SE 18-22-10	2382–2395	15
Empire	1	SWc SE SE 25-22-11	2185–2187	385
Texas	2	SEc NE 17-23-11	1926–1978	130
McGinnis et al	4	SEc NE NE 36-24-10	1869–1895	200
Empire	1	SEc 18-24-11	1791–1825	20
Manhattan	2	NWc NE NE 18-24-11	1850–1864	100
Theta	2	SWc NW NW 31-24-11	1913–1926	150

Kingman County

Ozark	1	NEc SW 4-30-6W	T.D.4252	Dry

Lyon County

Ritchey et al	1	NWc SW NE 25-21-10	2579–2589	250
Theta	6	SWc NW 30-21-10	2251–2312	125

Russell County

Valerius	3	SWc NW SW 17-12-15W	3036–3070	90

Sumner County

Roxana	1	SEc SW NW 22-31-2	T.D.3820	Dry

Woodson County

Kansas	1	NEc NW NE 34-25-17E	1179–1191	10

NEW MEXICO

Eddy County

Flynn et al	53	NWc NE 28-18-28E	2078–2096	50

San Miguel County

Santa Fe	1	NEc SW 3-13-15E	T.D. 875	Dry

Chaves County

Colorado	1	SEc NW 16-8-27E	T.D.5040	Dry

SW of 36-9-6, about three quarters of a mile southeast of Seminole production. This well is now drilling in the Viola lime at 4070 feet and has about 250 feet of oil in the hole from the Misener sand.

It had 10 feet of Hunton lime from 3938 to 3948 feet, finding a show of gas in that formation, but no oil. It is running high enough structurally to make a well, its outcome depending largely upon the thickness of the Viola. If this formation shows its usual thickness of about 75 to 80 feet, there is reason to look for production in the Wilcox immediately beneath it.

Seminole Pipe Lines Adequate

IT is estimated that pipe lines serving the Seminole field are now capable of handling 137,000 barrels daily, so that, with the field making only slightly over 104,000 barrels at present, there is a definite end to the congestion that brought about the recent proration agreement among the operators.

It will be some time before the field is making as much as this indicated pipe line capacity, and in the meantime, tankbuilding is going on rapidly and on a large scale. It seems safe to

assume now that the Seminole situation can be well taken care of, and it is likely that the next meeting of operators, scheduled for Nov. 29, will result in a complete lifting of all shut down restrictions. Estimated capacity of the various pipe lines at Seminole is as follows:

Company	Estimated Daily Capacity, Bbls.
Prairie	30,000
Sinclair	20,000
Oklahoma (Carter)	30,000
Gulf	25,000
Independent	5,000
Magnolia	12,000
Tidal	5,000
Ozark (Roxana)	5,000
Shaffer	5,000
Total	137,000

Pure Oil Co. is leading the Seminole field in production with five wells on its Strothers lease making 9250 barrels daily. Although official figures are not available, it is reported that this production has been increased to about 13,600 barrels in the past day or two through deepening of wells, the Pure being about the only company that has succeeded in getting more oil by drilling deeper. This company deepened its No. 1 by three feet and increased its production about 500 barrels, to 2530 barrels daily. No. 2 deepened five feet, jumped from 2635 to 4098 barrels. No. 4 and No. 5 were deepened nine feet and three feet, respectively, but there was no increase in production.

Pure drilled in its No. 3 Strothers during the week, getting top of Wilcox sand at 4057 feet and drilling to 4133 feet, where it made 1830 barrels in 24 hours. Late reports are that this well is now flowing 3350 barrels. It is located in the SEc NE SW of 26-9-6.

Sinclair Oil & Gas Co. drilled its 1-A Cudjo 11 feet deeper, with no resultant increase in production, and got the same result when it deepened No. 1-B 21 feet. Gypsy Oil Co. drilled four feet deeper in its No. 1 Wolfe and Tidal Oil Co. went six feet deeper in its No. 2 Mayhardy, but neither well responded with increased output. The Searight well that discovered the Wilcox sand in that pool also was deepened two feet with no increase, and Barnsdall No. 2 Carter failed to increase when deepened five feet.

Independent Oil & Gas Co.—Interocean Oil Co. No. 1 Jones was one of the wells that went dead during the week. It was brought back to production by swabbing and is now making about 800 barrels daily by this method. Tidal Oil Co. No. 1 Mayhardy, in the NEc SW of 24-9-6, which was a 5000 barrel well originally, is the field's latest casualty, having gone dead yesterday.

WASHBURN, N. D.—An automatic air tower has recently been installed at the station of Washburn Motor Co. here, according to B. E. Robinson, secretary and treasurer. A bulk station was completed by the company in July, 1925, and a service station in June, 1926.

Fig. 106

Screwed, Jenkins Standard Bronze Globe Valve

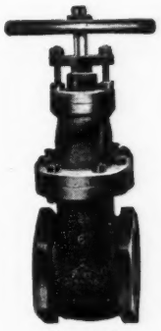


Fig. 325

Screwed, Jenkins Standard Iron Body Gate Valve

"Jenkins throughout"
lowers plant maintenance

An installation of "Jenkins throughout" means savings in time, because the need for frequent repairs is eliminated. It means fewer interruptions in production for the same reason. It means savings in actual cash expenditures by reducing to practically nothing the number of valves and valve parts needed for replacements.

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Completions in N. C. & E. Texas, & Panhandle Week Ending Nov. 27

Archer County

Company	Well Farm	Location Survey	Depth	Initial Prod.
Hunter	1-Fee	McKinney	1640–1644	75
Kreeger et al	9-Turberville	Carson	1498–1523	200
Texas	14-Turb.	Carson	1497–1521	170
Texas	15-Turb.	Carson	1502–1523	270
Simms-Burns	3-Turber.	Carson	1492–1502	350
Texhoma et al	3-Kemp	Blk 63	T.D.1820	Dry
Atlantic	1-Allen	H&TB	T.D.1802	Dry
Kreeger et al	8-Turberville	Carson	T.D.1865	Dry
Simms	12-Turb.	Carson	T.D.1549	Dry
Texas	17-Turb.	Carson	T.D.1652	Dry
Consol. et al	3-Turb.	Carson	T.D.1517	Dry
Gulf	2-Melugin	Baxter	T.D.1527	Dry
Marland et al	1-Fox	Harris	T.D.1432	Dry
Atlantic et al	1-Farmer	Winters	T.D.1527	Dry
Muse et al	1-Salmon	Lyding	T.D.1224	Dry

Brewster County

Johnson et al	1-Skinner	GC&SF	T.D.1210	Dry

Brown County

Texas	2-Gaines	Miller	T.D.1350	Dry
Haines et al	1-Taber	Brown	T.D.1650	Dry
Moore	1-Thigben	H&B	T.D.1410	Dry
Texas	6-Hickman	Benson	T.D.1219	25
Bradstreet	3-Fomby	Smith	1162–1198	515
Bradstreet	4-Fomby	Smith	1150–1193	80
Gillespie	4-Newton	Swain	1280–1306	60
Humble	7-Wooldridge	ET	1253–1281	30
Moore	2-Williams	ET	1212–1240	50
Wilson	2-Stone	ET	1206–1246	100
Williamson et al	4-Wooldridge	ET	1229–1261	200
Williamson et al	8-Keller	Mitchell	1134–1158	80
Amerada	8-Fry	Stubblefield	1322–1325	280
Choate et al	3-Lowe	Stubblefield	1310–1314	725
Leter	11-Fry	Chaudoin	1298–1309	1100
Leter	12-Fry	Chaudoin	1314–1322	300

Callahan County

Cranfill et al	8-Henderson	Comal	1388–1405	20
Humble	1-Irving	Dyson	T.D.3432	Dry

Carson County—Panhandle

Marland	5-Burnett	I&GN	3127–3201	11M
Marland	6-Burnett	I&GN	3177–3171	200

Coleman County

Monroe	1-Harris	Starnes	T.D.1713	Dry
Harris	1-Wallace	Harris	T.D.1515	Dry

Cooke County

Westheimer et al	1-Franklin	Rodriguez	T.D.1784	Dry
Johnson et al	2-Dennis	Moss	T.D.1870	Dry
American	2-Dennis	Moss	1212–1226	50
Hoosier	8-Dennis	Moss	1212–1215	40
Hoosier	9-Dennis	Moss	1227–1229	30
Hoosier	10-Dennis	Moss	1230–1236	25
Lanier et al	-8Hyman	Moss	1207–1232	20

Crane County

Marland	2-Hughes	Rooney	2328-T.D.	60
Marland	2-Hughes	CCSD	2322–2363	200

Crockett County

Simon et al	1-Shannon	GSCF	T.D.3118	Dry

Eastland County

McLester	1-Allen	Foster	T.D.3187	Dry

Gray County—Panhandle

Humble	1-Merton	I&GN	2975–3195	275
Humble	3-Merton	I&GN	3035–3151	141
Roxana	1-Finlay	Chaney	3012–3019	60

Hardeman County

Trees	1-Wheat	WN&W	T.D.3260	Dry

Hutchinson County—Panhandle

Phillips	3-Johnson	H&TC	2670–2718	350
Phillips	4-Whittenberg	H&TC	2740–2760	25
White Eagle	8-Johnson	H&TC	2910–2941	10
Phillips	4-Johnson	M&C	2895–2959	125
Brookins et al	2-Whittenburg	M&C	2865–2940	150
Gulf	9-Whitten	Whitley	2884–2934	2785
Lenix et al	1-Whitten	M&C	3002–3026	550
Skelly	9-Johnson	A&B	2956–2994	600
Devonian	5-Whitten	Whitley	2884–2909	650
Hughes	8-Kingsland	D&SE	2784–2880	100
Midwest et al	4-Smith	Capers	2694–2766	1100
Phillips J. R	3-Smith	M&C	2747–2844	40
Phillips Pet	2-Kingsland	D&SE	2763–2778	200
Triangle	4-Smith	M&C	2739–2769	1200
American	2-Weatherly	M&C	2886–2998	275
American	3-Weatherly	M&C	2997–3025	100

Hutchinson County

Company	Well Farm	Location Survey	Depth	Initial Prod.
Ccherell et al	3-Smith	M&C	2961–3050	700
Empire	3-Weatherly	M&C	2980–3020	135
McIlroy	5-Smith	M&C	2954–3037	725
McIlroy et al	4-Smith	M&C	2954–3026	1200
Dixon Creek	37-Smith	M&C	2917–2993	63
Holmes et al	2-Smith	M&C	2700–2787	500
Gulf	1-Cochrell	M&C	2995–3022	25
Marland	1-Johnson	BB	T.D.3203	30M

Howard County

Choate et al	1-O'Daniel		2925–3003	8
Marland	3-Chalk	WNW	T.D.1623	100
Magnolia	4-Chalk	WNW	1582–1601	93
Magnolia	3-Chalk	W&NW	T.D.1421	45
Lockhart	2-Chalk	W&NW	1583–1582	70

Jack County

Buttram	1-Cullers	Chairs	2087–2096	80

Knox County

Evans et al	1	H&TC	T.D.1932	Dry

Mitchell County

California	2	TP	3070–3077	20

Montague County

Gulf	5-Howard		1161–1162	30
Texhoma	5-Martin	Votan	1061–1096	200
Texhoma	2-Martin	Votan	1041–1102	95
Farlyn	5-Maddox	Thompson	878– 892	60
F H & E	5-Howard	Chambliss	1358–1160	25
Humble	11-Maddox	Thompson	866– 870	65
Humble	1-Rowland	Chambliss	882– 889	20
McMan	3-Howard	Chambliss	1350–1370	35
Pure	3-Rowland	Chambliss	1065–1108	180
Smith	3-Maddox	Thompson	900– 907	15
Texas	3-Howard	Chambliss	1361–1377	35
Texas	30-Rowland	Chambliss	1060–1098	40
Texhoma	8-Bouldin	Chambliss	1121–1143	40
Texhoma	12-Howard	Chambliss	1045–1076	50
Texhoma	11-Rowland	Chambliss	1045–1076	50
Texhoma	17-Rowland	Chambliss	1075–1095	250
Texhoma	18-Rowland	Chambliss	1047–1078	100
Texhoma	1-Rowland	Chambliss	756– 115	290
Texhoma	5-Jones	Donoho	832– 856	24
F H E	1-Salmon	Zuber	916– 926	95
F H E	3-Salmon	Zuber	960– 970	75
Texas	25-Gist	Donoho	926– 934	20
Tex	2-Salmon	Little	907– 932	12

Reagan County

Big Lake	96-Univ.	University	2897–2915	50
Big Lake	103-Univ.	Univ.	2444–2451	75
Texon	7-Univ.	Univ.	2440–2463	6M
Marland	1-Sawyer	TP	T.D.3215	Dry

Shackelford County

Wentz	3-Proctor	ET	T.D.2201	Dry
Magnolia	2-Moberly	ET	T.D.1550	Dry
Milham	2-Sedgwick	TEL	2505–2573	25
Amerada	1-Cook	ET	1305–1350	100
Rosier-Pendleton	8-Cook	ET	1124–1136	10M
Rosier-Pendleton	10-Cook	ET	1128–1147	383
Rosier-Pendleton	15-Cook	ET	1275–1295	615
Rosier-Pend	3-Cook	ET	1123–1137	77, 8M
Hope	14-Reynolds	TP	1334–1344	220

Stephens County

Atkinson et al	1-Williamson	TP	T.D.3555	Dry

Upton County

Kinkwood et al	1-Ranking	Bk. A.	T.D.2950	Dry
Dixie	9-Burleson	Jones	T.D.2350	Dry
Marland	4-Estep	MK&T	T.D.2360	Dry
Roxana	2-Hughes	Teal	2115–2161	800
Marland	2-Estep	MK&T	2253–2364	100
Marland	6-Estep	MK&T	2327–2335	1400
Marland	7-Estep	MK&T	2300–2330	60
Roxana	4-Hughes	Teal	2049–2145	1355

Wichita County

Ridgewat et al	1-Allen	SA MG	T.D.2103	Dry
Leath et al	1-Fossett	S&MG	T.D.1855	Dry

Wilbarger County

Texas	305-Waggoner	H&TC	T.D.2750	Dry
Milham	6-Waggoner	H&TC	2396–2552	25

Winkler County

Eastland	1-Hendricks	Land	2974–3006	120

Young County

Gulf	3-Roach	TEL	T.D.1421	Dry
Kruger et al	1-Deitrick	BBB&C	T.D.1180	Dry
Golding et al	1-Hunt	175	T.D.1203	Dry

Completions in North Louisiana and Arkansas, Week Ending Nov. 25

Company	Well	Location	Depth	Yield
LOUISIANA				
Urania				
C. A. Hudson	Urania No. 1	7–10–2E	1530	150
Mrs. Joyce Richardson	Hatfield No. 1	7–10–2E	1545	50
Rowe et al	Hatfield No. 1	7–10–2E	1540	45
O. F. Whittaker	Hardtner No. 1	26–10–1E	1550	150
Little Creek				
George W. Weatherbee	Urania Lbr. Co. B-2	3– 9–1E	1505	40
Wingfield et al	Urania No. 2	2– 9–1E	1497	80
Caddo Parish—Caddo District				
Howard et al	Pyron No. 1	15–21–15	1685	10
Superior Oil Co	Youree No. 5	26–20–15	2290	60
Texas Oil Co	Russell No. 12	3–20–16	2345	10
Thomason et al	Muslow Fee No. 5	31–21–15	1670	15
Gulf Refining Co	Ferry Lake No. 259	16–20–16	2286	50
Caddo Parish—Vivian				
Ramsey et al	Powell No. 11	36–22–16	1050	15
Standish O. & R. Co	Allen No. 9	23–22–15	1060	25

Company	Well	Location	Depth	Yield
Ouachita Parish				
Hatcher & Evans	Fee No. 5	17–19–4E	2205	10m. ft. gas
East Texas—Panola County				
Harper & Hudson	Johnson No.5 Bradberry HRS		2003	5m. ft. gas
ARKANSAS				
Union County				
Nat. Gas & Fuel Corp	Cordell No. 1	9–18–13	2540	s.w. aband.
Columbia County—McNeil District				
Crosbie et al	Wornack No. 5	1–16–20	2225	15
Nevada County				
Wright Oil Co	Graves No. 2	12–14–21	1160	50
Smackover				
H. M. Harrell, trustee	Flenniken No. 7	5–16–15	2555	25
S. Y. Ramage	Ezzell No. 1	24–16–15	3005	20 mil. ft. gas
Lisbon				
Humble O. & R. Co	Snydor No. 4	21–17–16	2170	20
Imperial O. & G. Co	Ramsey A-4	21–17–16	2192	15

Oil Company Executive is Elected To Federal Reserve Bank Board

By Lawrence E. Smith
N. P. N. Staff Writer

TULSA, Nov. 29

THE oil industry of the Mid-Continent has finally been accorded representation on the directorate of the federal reserve bank, Kansas City district, or at least it presently will be. While the election of a new director does not formally end until Dec. 3, the only man being voted on is L. E. Phillips, of Bartlesville, hence the past tense is justified.

Mr. Phillips, who is vice-president and general manager of the Phillips Petroleum Co., was endorsed by all the major clearing houses of the district.

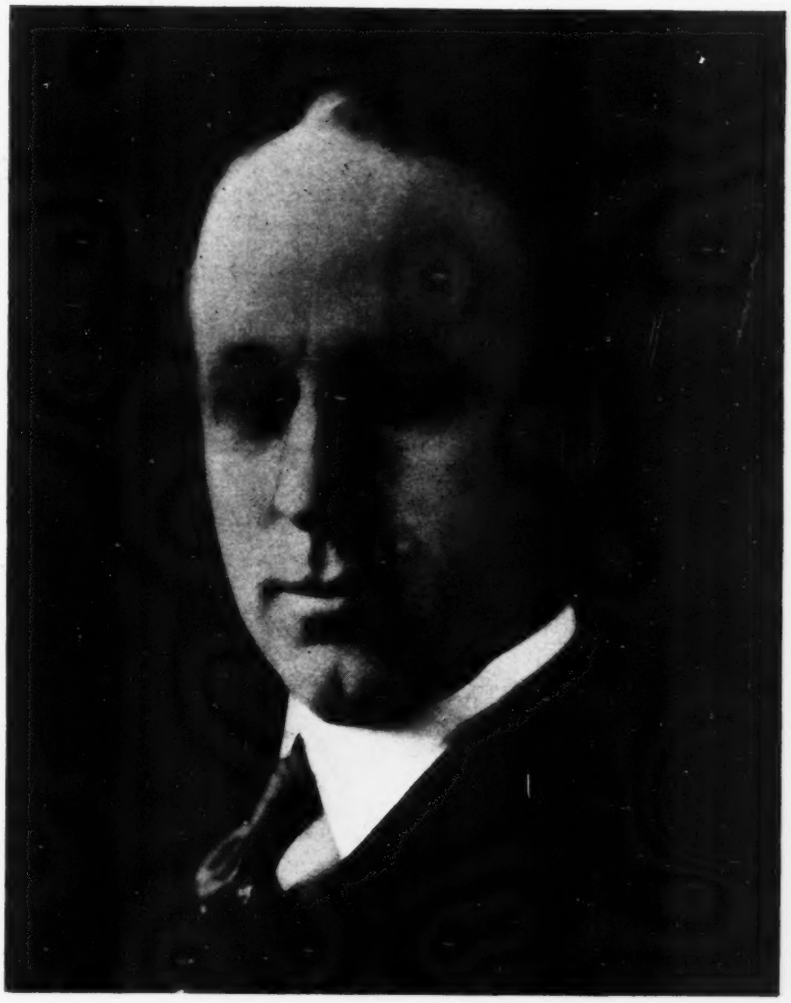
"The oil industry now has a real friend at court in the financial affairs of this district." said R. P. Brewer, chairman of the board of the First National Bank, Tulsa. "The industry should recognize at once the benefit that has been gained and it should recognize also that Mr. Phillips has conferred upon it a distinct favor in consenting to accept the place. He is a very busy man and the shouldering of this additional responsibility means that he is cutting further into his limited time. It is a public spirited act on his part and I am certain that it will generally be recognized as such.

"The choice is a fortunate one, for Mr. Phillips knows both banking and the oil business."

It was as bankers that the Phillips brothers, Frank and L. E., came to Bartlesville. They made their first appearance in that growing oil center in 1904 and in March, 1905, they opened an office. On Dec. 3, 1905, the Citizens Bank and Trust Co. opened its doors in Bartlesville, with Frank Phillips as president and L. E. as vice-president and cashier. Capitalization of the bank was $50,000. Today, on the ground floor of the building in which are located the general offices of the Phillips Petroleum Co., the First National Bank of Bartlesville, capitalization $500,000, perpetuates the 21 years of banking history of the Phillips brothers. This bank came about through consolidations of the early Citizens bank and others and the First National is headed by Frank Phillips with L. E. as a vice-president.

This vice-presidency business seems to be traditional with L. E. Phillips. "I consider myself a professional in this field," he said. "Being the elder, Frank takes the presidency, as is his right."

Mr. Phillips was born and raised on a farm near Conway, Iowa. He was educated in the country schools of that region and attended a normal school at Shenandoah preparatory to teaching.



L. E. PHILLIPS
Vice President and General Manager of the Phillips Petroleum Co.

At the tender age of 17 he signed a contract to instruct the young—some of whom were older than he was—in a rural district. A little later he engaged in the coal mining business, living in Creston, Ia., terminating this occupation when he got the news that Oklahoma was a land of considerable opportunity for the right man.

He has made Bartlesville his home ever since he first established his offices there. There are two sons and one daughter in the L. E. Phillips home. The oldest, Phillip R. Phillips, was graduated from the University of Kansas this year and at present is a student in the "floating university," as the S. S. Ryndam has been called. This is a round-the-world cruise of a party made up of educators and students and at last reports was in the waters of Japan. The other son, L. E. Phillips, Jr., is a senior in the University of Kansas and will be graduated as a geologist next year. The daughter, Martha Jane, is a student in the Erskine School, Boston.

On the question of what he will do as a director of the Federal Reserve bank of this district, the interviewer finds Mr. Phillips entertaining no preconceived ideas of his own importance.

"I hope to be able to supply information on the oil industry to the directors of the district that will be helpful in determining policies of benefit to the industry," he said. "Throughout the country oil is still looked upon as a 'game', as a highly speculative industry instead of the well grounded, essential business that it is and even bankers can well afford to pursue their studies further."

Less Shooting of Wells Brings Decrease In Panhandle Output

By Lawrence E. Smith
N. P. N. Staff Writer

TULSA, Nov. 27

WHILE production for the Panhandle district showed a decrease of 8400 barrels daily for the week ended Nov. 25, this was due chiefly to a let-up in the shooting of new wells and other methods of stimulating production rather than to the colder weather which has been expected to cause a general decline in output.

True, no severe weather has visited the district as yet, but in a recent three-day chilly spell the temperature got as low as 28 degrees. Production was not materially affected during that period. Some effect of the lowered temperature was observed on flow lines and other lines on top of the ground. In some instances an increase in pressure of 50 pounds was noticed on the lines.

The daily production per well continues to drop, representing not only a decrease in the output of settled wells but reflected in part in the considerable number of new wells put on production without shot. A noticeable tendency is to refrain from boosting production at the rate it was increasing during the summer.

Daily production for the entire district during the week ended Nov. 25, was 157,985 barrels from 703 wells, an average of 225 barrels per well. Daily production for the previous week was 166,410 barrels—the peak thus far for the field—from 682 wells, an average of 244 barrels per well. A month earlier than the week ended Nov. 25 the per well average was 267 barrels daily from 595 wells.

Due to the recent Mid-Continent price reductions, offers of the agents of a number of smaller refining companies have been shaded somewhat. Most of the offers now on long term contracts would be made subject to Mid-Continent price changes and at prices that at present would put the oil to destination at $1.75 to $1.90 per barrel. It is repored that some oil is to be had at $1.30 in the field, which price includes loading charge of 15 cents per barrel.

In comparison with this figure, at least one contract was made shortly before the price cut, for one year's time. For the first six months the purchaser pays $1.20 per barrel, at the field tanks, and for the second six months, $1.60. Another contract, for eight months, calls for a field price of 7½ cents under the posted market, now $1.25.

The latest announced loading rack is that of the Pantex Pipe Line Co. which will be located on that branch of the Rock Island railway from Liberal, Kans., to Amarillo. The loading rack will be located in Sec. 10, Block Y-2, T. T. Railway Survey or in Sec. 1, B. S. & F. Survey, on the Carson-Hutchinson county lines.

Plan Pipe Line Into Winkler County Field

HOUSTON, Nov. 27.—Southern Crude Oil Purchasing Co., which is allied with Standard Oil Co. of Indiana through the Pan American group, is going ahead with plans for a six-inch pipe line a distance of 20 miles from Winkler county production to the Texas & Pacific Railroad for tank car shipments of crude.

This work follows the company's purchase last week of the Westbrook et al well in section 42 and surrounding acreage in block B 5, Winkler county, for $510,000, half of which consideration is to be paid out of oil produced. A total of 1490 acres was involved. Previously Roxana Petroleum Corp. had paid $225,000 for approximately 800 acres owned near the well by Johnson & McCamey of Fort Worth. Humble Oil & Refining Co. paid $224,000 partly in oil to be produced for 1560 acres near the well. Production from the discovery completion averages roundly 125 barrels daily at total depth of 3004 feet in the lime pay horizon of the west Texas Permian salt basin.

Mowry Bates, Leading Geologist, Dies in California

TULSA, Nov. 27

MOWRY Bates, formerly of Tulsa, and well-known as a petroleum geologist, died at Ocean Beach, Cal., Nov. 16, from a complication of maladies following paralysis. He had retired from active work some time ago and had been in poor health for several years.

Mr. Bates was born in Cleveland, O., Sept. 19, 1875. As a youth he attended the Michigan Military School and later went to Stevens Institute of Technology. He completed his college work at Columbia university, studying geology there from 1904 to 1907, after he had had a number of years' active field experience in mining. After six years' work in mining engineering he served through the Spanish-American war. From 1898 to 1901 he was superintendent for the J. C. Pearson interests on exploration work in Cuba and for the two years following that was a consulting mining engineer at Uray, Col.

His first connection with the oil industry was in 1902 when he came to Bartlesville, Okla., and worked for two years as driller and roustabout. He then returned to mining engineering and continued in that profession until he came to Tulsa in 1913. Again he worked as a roustabout to gain field experience, and then was employed with the Gypsy Oil Co. under M. J. Munn, chief geologist. In 1915, he was in Shreveport with the Gulf Refining Co. of Louisiana, but returned to Tulsa the following year. In 1916 he went into consulting work in partnership with Dorsey Hager.

The firm of Hager & Bates for the next three years was closely identified with oil developments. Among its achievements was mapping the structure and making the location for the first well in what afterwards became the Garber field. For a time the firm was known as Hager, Bates & Lewis, the third member being J. Whitney Lewis. In 1919 it was dissolved and Mowry Bates then formed a partnership with Bernard H. Lasky, who is still a consulting geologist in Tulsa. In 1922, Mr. Bates decided to retire from geological work and went to California, where he said he would devote his time to orange-raising. He was back in harness for a short time after that when he opened an office in San Angelo, Tex., but soon returned to California and remained there until his death.

Mr. Bates was married in October, 1917 and is survived by his wife and two children, a boy and a girl. He was a Mason and a member of the American Association of Petroleum Geologists and the American Institute of Mining and Metallurgical Engineers.

Chisholm Takes Louisiana Conservation Post

Staff Special

HOUSTON, Nov. 29.—W. F. Chisholm of Shreveport has been appointed supervisor of minerals of the Louisiana State Conservation Commission, succeeding Harry W. Bell, who resigned several months ago to join the petroleum engineering division of the Pure Oil Co., with headquarters at Columbus, Ohio. The appointment of Mr. Chisholm, who will have charge of oil and gas industry work for the Louisiana conservation commission, was announced by Dr. V. K. Irion, head of the department. Mr. Chisholm will make his headquarters at Shreveport, where prior to his appointment he had been connected with various oil companies since 1919 as engineer and geologist.

Ingenious Methods Found to Reduce Waste at Pure Oil Refinery

By J. C. Chatfield
N. P. N. Staff Writer

TULSA, Nov. 26

WASTE is one word modern refiners are seeking to remove from their vocabulary. They are looking forward to the time it will have historical significance only.

The chemists have attacked the problem of eliminating waste by discovering new manufacturing processes for turning into principal refined products what were formerly cheaper by-products, by finding new methods of treating.

The engineers have worked to make refinery operating equipment more efficient. They use the heat in out-coming vapors to heat incoming cold oil. They have found how to run their plants on a little less steam, or on less water for condensing.

In many plants also, the fight against waste is being made an individual one, on the part of the refinery superintendent, and his assistants, and it is surprising what results they have shown through the aggregate of their savings. They find a way of saving a little oil here that had formerly been lost; of making some old equipment, discarded for one purpose, serve a useful end in some other phase of operations. Here are described some of the ways in which waste has been cut down at the Muskogee refinery of the Pure Oil Co. G. A. McBride has been superintendent of this plant, operated under one name or another, for the last 16 years.

What is being done at this plant might be called the results of 16 years of studying refinery operations in the Mid-Continent field.

Pipes In Concrete Trenches

THROUGH a system of pipe conduits at this refinery a great deal has been accomplished in the saving of oil and time. All pipe lines in the plant used for transferring material from one point to another are placed in concrete lined trenches.

The entire conduit system connects with a sump where any oil losses caused by leakage or line failures are recovered. Water is trapped out and the oil pumped to storage for rerunning. In cases where lines break the saving of oil is often quite large.

Any changes which may be necessary in the pipe line system are easily and quickly made because of the fact that lines and connections are not buried and hence easily accessible. In cases where a leak develops or a line breaks it is possible to find the leak quickly and repair it without loss of time.

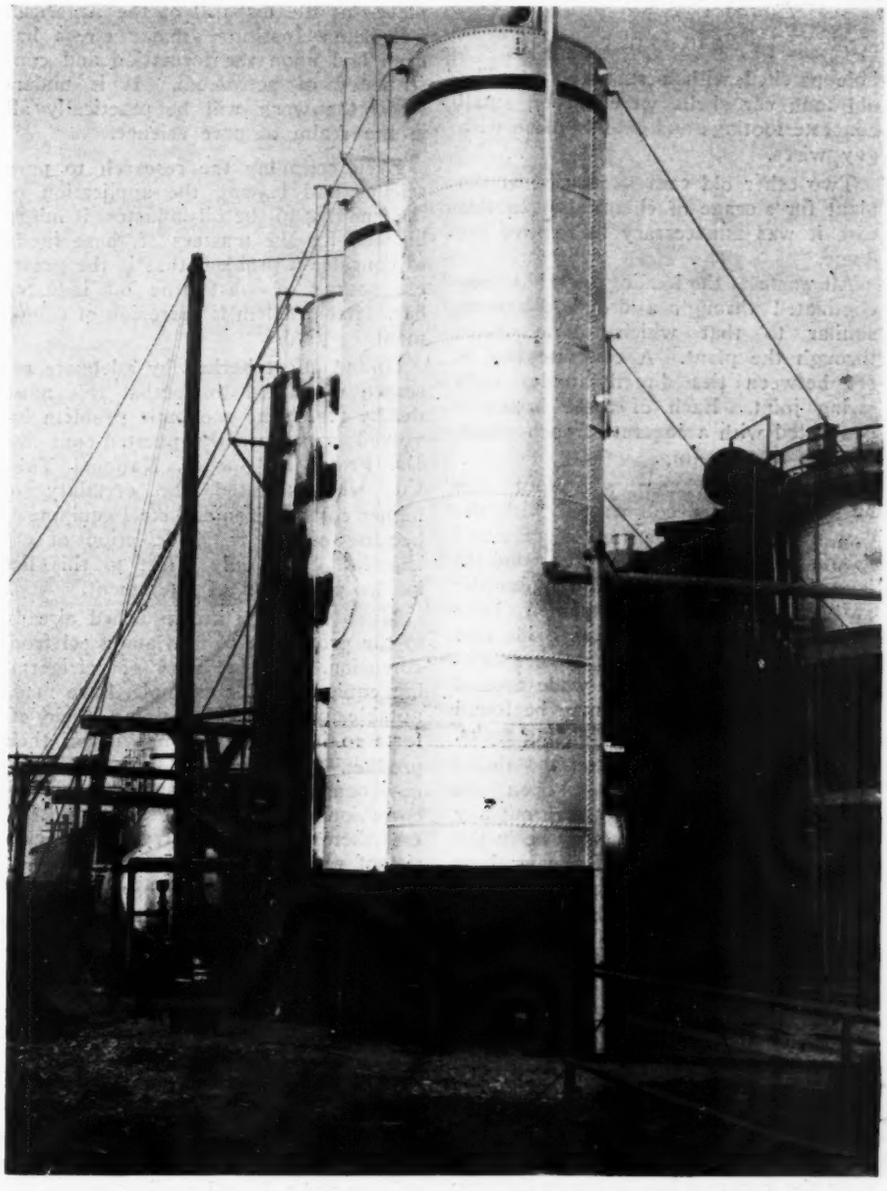
Removable sheet steel covers for the conduits are being prepared. This steel is material which has been salvaged from the old Cushing plant of the company which recently was dismantled.

The trench is protected against fire by a snuff line. This is a perforated steam line connected to the boiler house which is capable of flooding the entire trench system with steam on an instant's notice.

Use for Tank Cars

THERE is an old adage that a penny saved is a penny earned. If that is true the Pure has earned a good many dollars in rebuilding the Muskogee plant through the application of old material to new uses. An interesting example of this is the way in which the company engineers worked over a number of old tank cars to build a continuous treating system.

An accompanying photograph shows a treater in process of erection. Four old 6000-gallon tank cars which were unfit for further service were used to build the treater. The picture shows how the domes were cut off and the



Old 6,000 gallon tank cars converted to a new use in a continuous treating system for light oils at the Pure Oil refinery at Muskogee.

G. A. McBride, superintendent of the Muskogee plant. Mr. McBride has been in charge of operations of this refinery for more than 16 years. Under the management of three different refining companies he has seen the plant tripled in capacity and made one of the most modern and efficient in the Mid-Continent

hole patched with a small plate. The old tank car shells were set on small concrete footings and held in place with guy wires.

Two other old cars were used at the plant for storage of chemicals. In this case it was unnecessary to remove the dome.

All waste at the loading rack has been eliminated through a drainage system similar to that which carries lines through the plant. A concrete box is set between ties directly under each swing joint. Each of these boxes is connected with a concrete trench which empties into a sump.

Railroad switchmen who spot cars on the rack have co-operated with the company by cutting strings of cars and spotting them exactly over the concrete boxes between the rails and under the swing joints. The switchmen have told Superintendent G. A. McBride that they would much rather spot cars carefully over the boxes than wade around in an oily muck such as may be found around a large number of loading racks.

When a car is spotted on the siding the refinery clean-out men open the bottom outlet valves and sweep out any oil, water and dirt which may be in the bottom of the car. Almost always there is some oil remaining in cars when they are returned for reloading. Sometimes as much as a barrel is swept out and sometimes only a few gallons. But in the course of the year the saving mounts up to a rather large figure.

Funnels Catch Waste Oil

THE refinery machine shop has soldered up a number of large funnels for use in cleaning out cars. When the bottom outlet valve is not directly over the concrete box between ties one of these funnels directs the stream to it without loss. Even when the car is spotted exactly right the funnel prevents waste by eliminating splashing of oil on cross ties.

In common with many of the newer refineries the Pure plant has been made more efficient by the addition of a vapor recovery system. This plant handles all uncondensed gasoline vapors from the Cross cracking stills and the crude battery as well as storage and run-down tanks. At present the vapor recovery plant is adding 4500 gallons of gasoline a day to the production of the refinery.

As mentioned previously, exhaust steam is utilized in the lubricating oil plant with such good effect that no new boilers were needed when the capacity of the plant was increased from 2000 to 5000 barrels per day. Cooling water and fuel have been saved by the installation of vapor line heat exchangers and many other economies have been effected by careful engineering.

Corrosion Suggested as Subject For A.P.I. Research Program

By Lawrence E. Smith
N. P. N. Staff Writer

THUS far in the announcements of the research work which will be carried on by virtue of the Rockefeller and Universal Oil Products funds placed at the disposal of the American Petroleum Institute, major stress has been laid upon the formation and constituency of petroleum. It is understood the work will be practically all in the realm of pure science.

Even confining the research to pure science and leaving the application of the findings to the oil industry, it might be well for the trustees of these funds to consider a problem that is the greatest source of waste the oil industry has. That problem is corrosion of equipment.

United effort backed by adequate research is needed to combat this most deadly foe. The economic problem involved was recently pointed out by Dr. Frank N. Speller, National Tube Co., who indicated the certainty of higher costs of iron and steel equipment, because of the rapid depletion of ore supplies. The only offset to this lies in the protection of equipment.

Much has been accomplished already in the protection of iron and steel from corrosion. Manufacturers of refrigerating equipment, for example, have made notable progress by joining their efforts to increase the longevity of their product. The Bureau of Standards is now conducting important tests on soil corrosion of pipe and the manufacturers themselves are carrying on consistent research.

In the oil industry, however, no joint effort has been displayed, notwithstanding the enormity of the cost of new equipment, most companies, refining and pipe line more than producing, are steadily doing some protective work, but each is pretty much going along single-handed.

What is required, first, is adequate conception of what corrosion is. Research work to arrive at this fundamental comes within the plane of pure science and a liberal employment of the A. P. I. research fund might accomplish much.

As a co-related endeavor, the A. P. I., through its standardization committee, could well include protection of equipment against corrosion in the work it is preparing to do on standardization of usage. This committee could serve as the clearing house for information as to the methods that have been found partially successful already.

Gas Lift Flows Old Panuco Wells

NOT alone in the fields of California and the Mid-Continent has the utilization of gas pressure in recovering oil been successful. Those districts have received the most publicity on this subject because the work has been carried out on larger scale. A notable instance of the revival of wells that ceased to flow their production is the work that is being done by the Pan-American interests in the old Panuco heavy oil district of Mexico.

In this field it has long been the custom to abandon any well that ceased to flow. The oil is heavy—averaging 13.7 A.P.I. gravity with viscosity at 100 F. of 6000 sec. on Saybolt Universal Viscosimeter. No present known pumping equipment would handle the oil to advantage.

Not much gas pressure was present but by taking advantage of what there was, through tubing the wells, the Pan-American has restored several wells to good production. The several wells that have been worked over by tubing were standing full of oil. In one case where the 10-inch hole was brimful of oil a mere reduction to 8-inch was sufficient to start the well to flowing 5000 barrels daily.

Practice generally on the wells that have been revived was to equip them originally with 8 or 10-inch oil string. The Pan-American in re-equipping them runs 4-inch tubing, sometimes with packer if suitable packer seat can be found, otherwise without packer. Gen-

erally the wells in this district have 500 to 1000 feet of open hole.

As the "dead" wells had no derricks, these having been moved away with completion of the well, the Pan-American is making use of a Star machine of the type that is fitted with caterpillar tractor and is gasoline engine operated.

Another method of bringing back the Panuco wells was started by the Pan-American. The wells had been flowed into central tanks a mile or more away. Now, by setting new tanks close to the well, pressure is utilized more effectively.

* * *

Southeastern Ohio Producers Organize

DISAGREEMENTS are bound to arise in the oil industry from time to time, for the views of the producer as to the worth of his production are frequently out of harmony with those of the refiner. Such diversity of opinion has recently brought into being the Southeastern Ohio Oil Producers Association. This group, which includes many prominent operators in the territory which formerly was classified as producing Pennsylvania grade oil, contends that it is being discriminated against as to price. A differential between this oil and the Pennsylvania grade was established upward of two years ago.

The operators who organized the association are men of long experience and they are making a careful study of the remedies which they can employ. Primarily, they desire to have their oil put back on a parity in price with that of the neighboring fields of West Virginia, but there is some discussion of new refineries to handle the southeast Ohio production.

Jobber Installs Welded Tank of 200,000 Gal.

ST. PAUL, MINN., Nov. 29.—The Midwest Oil Co. of Minneapolis has just installed 590,000 gallons of tank capacity, placing the plant in operation in the last few days of October. The installation was made by the Brown Sheet Iron & Steel Co., of St. Paul who put in one 200,000-gallon welded tank, the biggest welded tank in the northwest. Besides it, there was a 50,000-gallon tank and a 12,000-gallon tank, and thirteen 25,000-gallon tanks in the installation.

Cleans Crankcases with Air

CANTON, O., Nov. 15.—Air equipment for blowing out crankcases before new oil is poured in has been installed in connection with the greasing and oiling pit at the main down town service station of The Citizens Oil & Gas Co. here. Two hundred pounds pressure is used for this purpose, according to F. K. Samuel, treasurer.

Finds Cracked Fuel Oil Valuable For Enrichment of Water Gas

A LETTER written to the editor of Chem & Met and published in the November issue of that paper has considerable interest for refiners and especially those that operate cracking stills. The writer of the letter is Alfred Schwarz, consulting engineer of 25 Broad st., New York City. It deals with the use of residues from cracking stills for the enrichment of water gas, for which purpose gas oil is now generally used.

His proposal is interesting because it might mean on the one hand a more profitable market for cracked fuel oil and on the other, diversion of gas oil from gas enrichment to the cracking still where it would furnish more gasoline. If his suggestions are generally applicable in the gas industry, it would seem that the refiner could, in a measure, eat his cake and have it too, cracking the gas oil that formerly went to the gas plant, and selling what was left to the gas plant at a good price. Mr. Schwarz's letter follows:

"In your issue of September, 1926, on page 525, you have an article under the heading, "Water Gas Manufacturers Should Make Their Plans Now." The article is very much to the point; not only is the use of gas oil for cracking stock encroaching upon the material which the gas manufacturers require, but also the house heating furnaces are using this type of oil and the users of them are paying from 10 to 11 cents per gallon.

"There are at present approximately 2900 different types of house heating furnaces manufactured in the United States and thousands of installations are being made each year. Each furnace will consume a minimum of 1000 gallons per season and while there are no statistics available as to the actual quantity of oil now used by house heating furnaces, yet the consumption is already very large.

"These furnaces seldom are equipped to burn an oil lower than 28 degrees Be. and 24 is about the lowest they can use and this oil is taken directly from the stocks available for gas oil.

"The article draws the conclusion that water gas should be substituted by coal gas. To some extent this might be done but on a large scale this would scarcely be practicable. Complete gasification of coal is as yet not accomplished excepting where coal gas is made and mixed with water gas produced in a regular water gas set.

"Without the addition of oil, however, this gas would be too low in B. t. u. to meet the present standards. As a matter of fact, if all the coke was to be used for making water gas and only the coal gas were available to be mixed with it, the gas would be under 400 B. t. u. and it could scarcely be expected that the public service commissions would lower the B. t. u. standard that much.

"There is, however, another way of approaching the subject. For the last three years I have experimented with cracking still residues and have found it entirely feasible to make an oil gas from the same which will enable the gas manufacturer to enrich water gas to any desired B. t. u. standard and do this without gas oil.

"It is not very easy to produce this gas in conjunction with water gas, such as is done now in the carburetor attached to the water gas generator. The gas is produced in a separate apparatus and mixed cold with the water gas. In the following I will give you the analysis of a typical gas of this character:

CO_2	2.4
Illum.	49.7
O_2	0.6
CO	4.9
H_2	15.2
CH_4	21.7
N_2	5.7
Total	100.2
Total Inerts	8.7
Total B. t. u.	1,402.5

"This gas is made from a cracking still residue of approximately 10 deg. Be. It is produced without the deposition of carbon in the apparatus and without the production of undesirable emulsions, as is often the case when heavy oils are used for gas enrichment.

"As is well known, cracking still residues carry quite a proportion of suspended carbon and are very undesirable for fuel oil and should therefore become readily available for the manufacture of enriched water gas. Only a few hundred feet of this type of gas are required to enrich 1000 cubic feet of water gas. This gas is now being produced with an initial installation of a capacity of 25,000 cubic feet a day and the plant has been in operation for several months with excellent success.

"Needless to say, the cost is considerably less than water gas enrichment by the use of gas oil. Exact data are available for private use but not for publication.

"It must be considered that the installation of coal distillation plants of the present type, substituting the present water gas capacity of the United States would run into hundreds of millions of dollars and the coke production would be altogether out of proportion with the markets. It seems, therefore, that the above described method is timely and will solve this question for some time to come, particularly since the cost of installation is nominal."

BIG FORK, MINN.—Scenic Oil Co., which is comprised of Big Fork people, has just completed a service station with bulk storage, C. A. Swanson, manager, has announced.

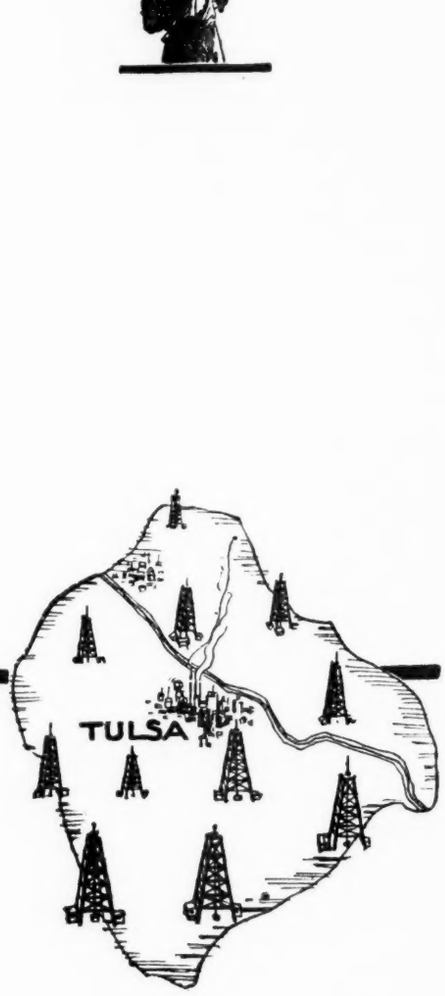
GALESBURG, ILL.—A service station has just been opened here by Welsh & Algren. This is their second station, and both stations are reported doing a good business.

Taking the Gamble out of Finishing in the Petroleum Industry . . . .

THE DU PONT COMPANY has devoted two years of intensive study to the oil industry. Chemical research, based on this survey, has evolved a line of materials which is ready to do and is doing a specific job for the industry.

Because of this extensive control of raw materials and of intermediate processes, the du Pont products have a high degree of uniformity. Rigid chemical control, of materials and manufacturing methods, insures correct formulation.

Having provided satisfactory materials, designed for specific requirements to be met in serving the petroleum industry, du Pont research has further encompassed the field of practical use and application. Trained finishing men—who are in reality competent finishing engineers—are placed at your disposal. These men comprise the du Pont Petroleum Finishing Service, a corps of experts who will make analyses of your finishing needs and will recommend complete paint systems based upon the individual requirements of any branch of the oil industry.



To this end, the du Pont Company offers to executives in the petroleum industry the services of the Petroleum Finishing Service, backed by the enormous chemical research facilities of the du Pont Company. These services are, of course, free. Inquiries are invited. E. I. du Pont de Nemours & Co., Inc., Chemical Products Division, Parlin, N. J., Tulsa, Okla., or Chicago, Ill.

DU PONT

A du Pont finish for every surface

High Tax on Gasoline Has Some Influence In Checking Consumption

CLEVELAND, Nov. 27

KENTUCKY motorists, who burned up 7,239,000 gallons of gasoline in February, 1926, when the state tax was 3 cents a gallon, used only 6,005,000 gallons in March, when the tax was 5 cents a gallon. The 5-cent tax became effective Feb. 21 so it was in operation only a week in February.

There was a loss in one month of 1,234,000 gallons which, in the opinion of William A. Stoll of the Stoll Oil Refining Co., Louisville, was directly traceable to the increase of 2 cents a gallon in the tax. Mr. Stoll's opinion seems to be supported by the fact that weather conditions are about the same in March as in February and March had 31 days as against 28 in February.

Furthermore, consumption of gasoline in Kentucky in every month since February, except June, has been actually below the consumption in the corresponding month of 1925 when the tax was 3 cents. The first nine months of 1926, of which one and all but a week of another were under a 3-cent tax, showed a loss in consumption of 3,528,000 gallons over the corresponding nine months of 1925, or about 7.8 per cent.

The following table shows gasoline consumption by months for the first nine months of 1926, and 1925 and the first eight months of 1924.

*The total gasoline consumption for the 9 months ended with September, as given by the American Petroleum Institute, is 74,296,000 gallons. This does not agree with the total of the individual monthly figures in the above table. The monthly figures are also those of the Institute.

Comparative Kentucky Consumption (Gallons)

	1926 3c tax	1925 3c tax	1924 3c tax
January	7,422,000	6,499,000	6,228,000
	5c Tax (Feb. 21)		
February	7,239,000	6,087,000	5,422,000
March	6,005,000	6,049,000	4,508,000
April	6,822,000	6,855,000	6,359,000
May	6,535,000	8,385,000	4,449,000
June	10,416,000	9,139,000	6,736,000
July	7,947,000	9,955,000	8,796,000
August	9,937,000	10,984,000	8,704,000
September	8,607,000	10,055,000	.....
*Total 9 mos.	70,930,000	74,458,000	
Total 8 mos.			51,202,000

Chairman of Tax Committee

MR. STOLL, who is chairman of the wholesale dealers' gasoline tax committee, wrote a letter on this subject which was published in the Louisville Courier-Journal. He pointed out that judging from the decreased consumption of gasoline in his state it is possible that the state legislature, by imposing too stiff a gasoline tax, is killing the goose that lays the golden eggs.

He points out that not only is the oil business of the state injured to the extent that the motoring public buys less gasoline, but the road funds which are provided by the revenue from gasoline taxation, also suffer. The result is, less travel by residents of Kentucky, the road building program of the state is held down and tourists are discouraged from journeying through or sojourning in the state. Kentucky is the only state reporting that shows a steady decrease in gasoline consumption month by month as compared with the months of 1925.

Mr. Stoll's letter is reprinted herewith. It was this letter that led National Petroleum News to study the figures gathered by the American Petroleum Institute from the 38 states which have gasoline taxation, to discover if possible what effect a high gasoline tax has on the consumption of motor fuel. There is some evidence to show that the effect of a high tax everywhere tends to discourage consumption somewhat but in no other state is the direct relationship to be traced so clearly as in Kentucky.

South Carolina is the only other state that has a 5-cent tax. Although South Carolina has not shown an actual decline in consumption since the 5-cent tax became effective, as compared with 1925, the rate of gain in 1926 has been less compared with 1925 than was the rate of gain in 1925 over 1924.

Reduced Rate of Increase

THE accompanying table shows the relative rate of increase in consumption in South Carolina between the two months of 1925 when the 3-cent tax was in effect and the corresponding months of 1924, against the present rate of gain.

This Letter Started Study of Effect of High Gas Tax

HERE is the letter written by William A. Stoll of the Stoll Oil Refining Co. of Louisville concerning the effect of the high gasoline tax in Kentucky:

As we go along it might be well to consider the effect upon the state's income from high road tax as compared with a reasonable road tax on gasoline, such as is used by practically all the states. In Kentucky we have, as all motorists know, a 5-cent per gallon road tax, which became effective Feb. 21, 1926.

We are wondering to what extent this is responsible for the fact that while the gasoline consumption in July, 1926, in states increased 12.9 per cent in volume, the gallonage consumption in Kentucky decreased over 20 per cent. We quote from figures recently printed in the Oct. 10 issue of "The Filling Station and Petroleum Marketer." The total figures as given are that in July, 1925, in 32 states the total gasoline consumed was 376,058,000 gallons, or a daily average of 12,131,000 gallons. During July, 1926, the total sales for the 32 states amounted to 424,705,000 gallons, being a daily average of 13,700,000 gallons, a percentage increase of 12.9 per cent for July, 1926, over July, 1925.

Conspicuous, however, as against these figures stands Kentucky which is reported as having sold in July, 1925, 9,995,000 gallons total and in July,1926, 7,947,000 gallons, a loss of over 2,000,000 gallons. We must bear in mind that this loss of gallonage represents a loss to the state for July, 1926, alone of $100,000. Now if we were to consider that with a reasonable tax, such as is applied in most of the states, say of 2 or 3 cents per gallon, there had been an increased consumption of 12.9 per cent in Kentucky, as there was on an average in the 32 states. It is not difficult to figure Kentucky would probably have received as much income from a 3-cent tax as it is receiving from a 5-cent tax. It will occur at once to all fair minded persons that business has been injured by the discouragement of the sale not only of gasoline, but of the sale of automobiles and automobile accessories.

In other words, the merchants have lost largely by reason of this excessive road tax and Kentucky has probably not increased its revenue.

It must of course be borne in mind that our neighboring states have a lower tax than has Kentucky and are probably benefitting by our handicap. It is also feared that the tax is not being paid in full by all companies in Kentucky. The temptation to profit unfairly when the tax is so excessive is of course great and may be taken advantage of by those who are inclined to profit unfairly by not reporting the tax in full but use it in cutting the price and by this means increase their business.

Comparative South Carolina Consumption (Gallons)

	1926 5c Tax	1925 3c Tax	1924 3c Tax
January	6,346,000	6,191,000	5,263,000
February	6,789,000	5,406,000	4,528,000
		5c Tax (March 5)	
March	6,868,000	5,039,000	5,434,000
April	7,730,000	7,966,000	5,710,000
May	7,442,000	6,884,000	6,389,000
June	7,442,000	6,854,000	5,951,000
July	8,172,000	7,501,000	6,480,000
August	8,282,000	7,902,000	7,157,000
September	8,072,000	7,637,000	.....
Total 9 months	66,533,000	61,380,000	
Total 8 months		46,912,000	

Rate of Increase Halved

FOR the eight months ended August, 1923, when a 3-cent tax was in effect, gasoline consumption totaled 34,641,000 gallons. During the corresponding period of 1924 with the 3-cent tax still in effect, consumption gained 12,271,000 gallons, or 35.4 per cent; but for the 8 months ended August, 1925, with a 5-cent tax in effect since March 24 of that year, consumption gained only half as much as the previous year, 6,831,000 gallons, or 14.5 per cent.

In addition, gasoline consumption in March, in which the 5-cent tax became effective, was the lowest of any month in 1925 or 1924. It showed a loss of 367,000 gallons from the preceding month and a loss of 395,000 gallons from March, 1924.

A comparison of gasoline consumption gains in South Carolina with those of Alabama, which has only a 2-cent tax and about the same climatic conditions as South Carolina, shows that Alabama had considerably less decrease in consumption gain than South Carolina. In the eight months ended August, 1924, Alabama consumption increased 32.2 per cent over the corresponding period of 1923. In 1925, it increased 26.3 per cent, or about 6 per cent less than in the previous year. In 1926 it increased 21.6 per cent or about 5 per cent less than in 1925; while South Carolina consumption gained 35.4 per cent in the eight months ended August, 1924, over the corresponding period of 1923, and in 1925 when the tax was raised to 5 cents, demand gained only 14. per cent, or 21 per cent less than the increase of 1924 over 1923. In 1926 it gained only 8.7 per cent, or almost 6 per cent less than in the eight months of 1925 over 1924.

Hence, gasoline consumption in South Carolina in the eight months ended August, 1925 increased 11.8 per cent less than in Alabama, and in 1926 increased almost 13 per cent less than in Alabama.

Greater Gain Would Be Expected

THIS despite the fact that a rapid rate of increase of gasoline consumption would be expected in South Carolina because the larger part of the immense army of tourists who have been driving to and from Florida during the past two years, have motored through the state.

The accompanying table shows the relative rate of increase in consumption in six states in which climatic and other conditions are generally similar. Three of these are high tax states and three relatively low tax states.

It can be seen that gasoline consumption has shown less gain in the two states having higher taxes immediately after the increased tax went into effect; that consumption in Kentucky has decreased, while in the three states having lower gasoline taxes, consumption increases have held up much better.

Rule Broken In Southwest

IT may be that appearances are deceptive and that other factors than the amount of tax enter into the rate of increase in consumption because the rule of lower tax, larger consumption increase does not hold in Arkansas, Oklahoma and Texas. The latter state, which has the lowest tax—1 cent a gallon—showed the smallest rate of the three of increase of consumption in the eight months ended with August.

Despite the low tax, Texas ranked only sixth highest in percentage of gain in consumption among the 38 gasoline-taxing states. Of the five states showing larger percentage gains than Texas last year, three had 4-cent taxes, one a 3-cent tax and the other a 2-cent tax.

Consumption in Texas gained 70,106,000 gallons, or 30.1 per cent in the eight months ended August, 1925, over 1924, to a total of 302,635,000 gallons in this period of 1925. Consumption increased only 29,312,000 gallons, or 9.6 per cent, in the eight months ended August, 1926, over 1925, to a total of 331,947,000 gallons in the similar period of 1926.

Despite the 4-cent tax which went into effect in Arkansas also on Jan. 1, 1924, gasoline demand increased 17,362,000 gallons during the eight months ended August, 1925, to a total of 53,593,000 gallons, or a gain of 48 per cent. In a similar period of 1926, consumption gained 12,141,000 gallons, or 22.6 per cent, to a total of 65,734,000 gallons. This gain in 1926 is 5,221,000 gallons less than the gain of 1925 over 1924, or 25.4 per cent.

Oklahoma with a 3-cent tax effective Mar. 25, 1925, showed a gain of 20.6 per cent in gasoline demand during the eight months ended August, 1925, while in the corresponding period of this year, it gained 24.1 per cent.

Another state which has kept right on using more gasoline in spite of her 4-cent tax is North Carolina, although her gain in consumption for the eight months ended August, 1926 is considerably below the increase of 1925 over 1924. Gasoline demand in this state has fluctuated widely during this and the past year, showing changes ranging from a 4,000,000 gallon decrease to a 6,000,000 gallon increase in the months of 1926 over those of 1925.

With Mississippi getting a 4-cent tax on April 1, 1926, gasoline consumption has gained 13,500,000 gallons during the eight months ended August this year, over the corresponding period of 1925, or 24.7 per cent, as compared with an increase of 17,903,000 gallons, or 49 per cent, in the eight months of 1925 over 1924. Consumption in a similar period in 1924 totaled 36,573,000 gallons; in 1925, 54,476,000 gallons; and in 1926, 67,976,000 gallons. A 2-cent tax was in effect in this state at the beginning of 1924, which was increased to 3 cents on May 9, 1924 and to 4 cents on April 1 this year.

In Nevada where a 4-cent tax was put into effect on April 1, 1925, gasoline consumption decreased 83,000 gallons during that month, to 577,000 gallons, under April, 1924, although all other months of 1925 showed gains over 1924.

Consumption during the eight months ended August, 1924 was 5,397,000 gallons with a 2-cent tax, which increased 611,000 gallons, or 11.3 per cent, to 6,008,000 gallons in 1925. It increased 976000 gallons, or 16.2 per cent, to 6,984,000 gallons in 1926.

Florida, another 4-cent tax state has, of course, shown large increases in gasoline consumption, but causes of gains there are obvious. During the eight months ended August, 1924, with a 3-cent tax in effect, consumption was 79,935,000 gallons. During the corresponding period of 1925, it was 121,579,000 gallons, which is a gain of 41,644,000 gallons, or 52.1 per cent, with a 4-cent tax going into effect June 6, 1925. Consumption increased 74,375,000 gallons, or 61.1 per cent, to 195,954,000 gallons in the eight months ended August, 1926, the increase almost equaling the total consumption of 1924.

For Eight Months Ended August

	Kentucky (5c tax)	South Carolina (5c tax)	Mississippi (4c tax)	Indiana (3c tax)	Maryland (2c tax)	Alabama (2c tax)
1924, Gallons						
Consumed	51,204,536	46,912,000	36,573,822	157,255,891	53,786,482	54,016,671
(3c tax 6-18-24)	+30%	(3c tax 1-1-23)+35.4%	(3c. tax 5-9-24)+22.0 %	(2c tax 6-1-23)+26.0%	(2c tax 1-1-24)+16.7%	(2c tax 3-1-23)+32.2%
1925, Gallons						
Consumed	63,953,000	53,743,000	54,476,000	174,524,000	65,140,000	68,249,000
	+25%	(5c tax 3-5-25)+14.5%	+48.9 %	(3c tax 4-1-25)+10.9%	+21.1%	+26.3%
1926, Gallons						
Consumed	62,323,000	58,461,000	67,976,000	189,297,000	74,042,000	83,023,000
	—2.5%	+8.7%	(4c tax 4-1-26)+24.7%	+8.4%	+13.6%	+21.6%

Note: Plus and minus signs designate increase and decrease respectively in gasoline consumption.

Sales Campaign Aimed to Build Up Jobbers, Grease Business

TULSA, Nov. 29

A MOTORIST drove into a Tulsa greasing station the other day to get his car worked on. "Give me a good job, but make it fast, I'm in a hurry," he told the attendant.

The attendant snapped into action and was going strong until he unscrewed the first grease cup and looked in it. He pulled out a match from his overalls pocket and jabbed one end down into the grease in the cup. Then he began taking off all the grease cups, even the part that leads down into the bearing housing.

"What's the idea of that?" the customer asked, rather impatiently.

"I can't stuff a little more grease in these cups and let it go at that," he replied. "Look here." And he picked up a piece of wire and tried to force it through the opening which permits the grease to reach the bearing. The wire had to be turned and twisted several times before it could be forced through.

"That stuff in those cups was no good," the attendant declared. "It may have worked for a time, but see how it has clogged the openings? You can't get lubrication that way. The grease couldn't possibly work past that cloggy stuff."

The attendant then gave the motorist a few pointers on grease, as he continued to work on the car. He convinced the car owner that he knew his business about greases. When the driver started to shift into low and drive away, he called back, "I learned something new, all right. I thought grease was grease anywhere I found it."

That idea of teaching the average motorist something new about greases is the nucleus of a campaign being conducted by the Battenfeld Grease & Oil Co. of Kansas City—a campaign which, though still young, already has resulted in many jobber customers of that company showing increases of from 15 to 75 per cent in their grease business.

Letters and Copy Furnished

THE campaign, briefly, is centered around a series of letters and advertising copy. The letters are prepared by the Battenfeld sales force and printed on the letterheads of the jobber. These letters are mailed to salesmen and to filling station managers. There is no reason why the station manager in turn could not copy the letters and send them to his customers. The cost would be small, and he would be certain to get returns sufficient to take care of that.

J. R. Battenfeld, president of the company, explained the plan during a talk on "Lubrication" before the jobbers attending the Four-State meeting in Kansas City some weeks ago. The letters which his company sends out, however, were not read there, although he showed them to anyone interested.

To start the campaign, monthly grease sales reports were sent in duplicate to each service station man and bulk station man. The report had places for the number of cars greased, how much grease was sold in bulk and in cans, how many new customers were served, also whether the month's business showed an increase or a decrease as compared with the previous month.

Then a letter was sent to the jobber's salesmen, calling their attention to the report blanks sent to the service station men. This paragraph summed up the thought for that letter:

A Common Belief Displaced

"WE suggest that you induce your customer to introduce you to a few of his customers as a grease expert, when you meet them, tell them a few things about your cup grease, pressure gun grease and gear compound. They'll appreciate a little authoritative information from an expert. It may surprise you to know that more than 75 per cent of the autoists think that all grease is the same for all purposes. Do your stuff and wise them up a little, they'll like it."

Another letter to the salesmen, then the first of a series of letters to both the service station managers and the salesmen.

The first letter contained the grease chart, and the information that approximately 15 pounds of grease are used in every car and truck in the United States each year. "Our sales in this department prove conclusively that we are way short of our share of this business," the letter states in part.

The first letter of information was on gun greases. The first paragraph of the letter states:

"Here's a product you can go the extreme limit on in telling the customer how good our gun grease is. If our gun grease was a food product for human consumption it could not be better or more carefully made.

Then the service station man is told of the care in selecting materials for the grease, the special filtering process which prevents lumping, the melting point and the care in blending cup and gear greases.

"Start in today to increase your grease business," the letter concludes. "Talk grease to every customer who drives in for gas and oil."

Then followed the letter on cup greases:

"To the average man grease is merely grease. Grease to all outward appearances, particularly to those who have no knowledge on the subject, all looks alike. The customer buys grease, puts it in or has it put in his grease cups and feels satisfied that he has done all that is necessary.

Tell How Grease is Made

"CUP grease can be made from half a dozen different bases, which make it appear all right, but when it has been in the cups a short time it becomes hard and crusty and forms into lumps. These lumps clog up the outlets and as a result of this the bearings do not get proper lubrication. Putting in fresh grease does not relieve this situation as the lumps prevent the new grease from reaching the bearings."

A few points on how their grease is made, then the paragraph:

"Your customer has no way of knowing all these things unless you explain them to him. He buys his grease under the impression that all grease is alike. You can in general conversation explain to him some of the finer points of the business.

"Buying grease like many other things becomes a more or less of a fixed habit. When your customer finds that you are taking an interest in the lubrication of his car as well as the fact that you have a knowledge of the grease business he will buy grease from you."

The next letter is on transmission and differential grease. The same line of thought is carried out, i. e., education for the station man and the advice that he pass his information on to the customer.

The final letter in part is as follows:

"So far in this more grease sales campaign I have been doing all the talking. Now I want to give you a chance.

"What success are you having with your grease sales? Have you been talking grease to your customers? What do they say? Do you feel that the information I have given you about grease has been of any benefit to you? Are there other questions which you would like to ask? If so, ask them.

"This campaign for increased grease sales is not merely a temporary plan. There is a lot of good profitable grease business to be had and we are going to get it. Grease is no longer an 'orphan' with this company."

The series of advertisements have clever little illustrations just over the heading, and sufficient white space around the deep black lettering to make them catch the eye. These mats or electroplates are furnished the jobber at cost.

A few ideas from the grease manufacturer about the product he manufactures, and a little time preparing letters to customers, would help the jobber get more out of the grease business, Mr. Battenfeld thinks.

Marietta Process Used at Dominguez Early to Maintain Field Pressure

By Lester C. Uren
Professor of Petroleum Engineering, University of California, Berkeley

Article 3

IN the pumping wells, plunger pumps of common pattern are utilized through the instrumentality of a walking beam, with the power developed by individual gas engines. Fluid levels are still high, so that while the oil is being produced from a depth of 4000 feet or more, the actual lift is probably not more than 3000 feet. The gas-oil ratio is lower than in the flowing wells, being as low as 390-cubic feet per barrel in some cases.

The pumping wells are equipped with 2½ inch tubing and working barrels, and the rods are given about 24 40-inch strokes per minute. Some of the better pumping wells deliver from 350 to 400 barrels of fluid per day. Comparatively little trouble is experienced in operating pumping wells in this field, as sand conditions are not troublesome and pulling of rods and tubing therefore infrequent. This is in marked contrast with conditions in the nearby Torrance field.

Restoration of Pressure: The Marietta Process

WITH the hope of securing a larger ultimate recovery of the oil, the Shell and Union companies have cooperatively initiated a field experiment to determine what might be accomplished by restoring pressure in the partially drained oil sands. The Marietta, or Smith-Dunn process, has been thoroughly proven in several eastern and Mid-Continent fields of the United States, but only in fields in which the oil production has approximately reached the lower limit of profitable exploitation. Insofar as the California fields are concerned, the writer believes its use at Dominguez to be the first application. Use of the Marietta process in the Dominguez field is therefore not only a matter of practical importance to California oil producers, but likely to be productive of results of nation-wide interest. Here, apparently for the first time, a thorough-going test of the theory that maintenance of elevated field pressure will result in greatly enhanced ultimate recovery, is to be made.

Only recently has the true significance of gas pressure in its relation to oil recovery been disclosed. (5), (6), (7). The mechanics of expulsion of oil from the reservoir sands by expansion of high pressure gas, has of course, been generally understood by petroleum production technologists, but the influence of dissolved gas on oil viscosity was not appreciated until very recently. The resistance encountered by petroleum in flowing from the reservoir sand into a well, is a function of its viscosity. The viscosity of the oil decreases in a straight-line relationship with the volume of gas in solution and the volume of gas that the oil may take into solution, is directly proportional to the pressure.

It follows that release of pressure permits the oil in a sense "to congeal in the sands," so that the radius of drainage of the wells is greatly reduced below what the mere decrease in driving force of the gas would lead one to expect. If, on the other hand, we maintain the field pressure at a high level, the oil will remain of low viscosity and a maximum drainage effect will be realized. Under the ordinary system of oil recovery in which the field pressure is ever declining, the radius of drainage of the wells must rapidly diminish. This inevitably leaves imperfectly drained areas between the producing wells.

In addition to this very advantageous effect on the oil viscosity, forcing gas back into the sand eventually causes a flow of gas from the well in which it is introduced, through the oil sands, to other wells that are productive of oil in the vicinity. In practical application of the Marietta process, this practice has been found to result in additional oil beyond what would otherwise have been recovered being driven into the producing wells; and in some instances, the ultimate recovery has been approximately twice that secured by ordinary methods of flowing and pumping.

In the Dominguez Field, as we have seen, the development program adopted provided a rectangular arrangement, with the wells spaced 610 feet apart. In order to test the efficacy of the Marietta process, the Shell Co. has drilled Well No. 101 on the Reyes property, at the intersection of the diagonals of the square determined by wells 3A, 4, 5, and 13. (See Figure 10.) Across the boundary on the Hellman lease, the Union Oil Co. has drilled its Hellman No. 14 midway between wells 4, 5, 6, and 12. These wells were completed about four months ago, and were permitted to produce for three months in order to partially repay their cost, and to drain away some of the fluid from the sand. It was thought that partial

5. Doherty, H. L., Record of Public Hearings before the Federal Oil Conservation Board, May 27, 1926, pages 68-73.
6. Dow, D. B., and Calkin, L. P., "Solubility and Effects of Natural Gas and Air in Crude Oils", U. S. Bureau of Mines, Depts. of Investigations, Serial No. 2732, February, 1926.
7. Beecher, C. E., and Parkhurst, I. P., "Solubility of Gases in Crude Oils and Resultant Effects upon Viscosity and Surface Tension", a paper to be presented at the October 1926 meeting of the Mid-continent Section of the A. I. M. & M. E.

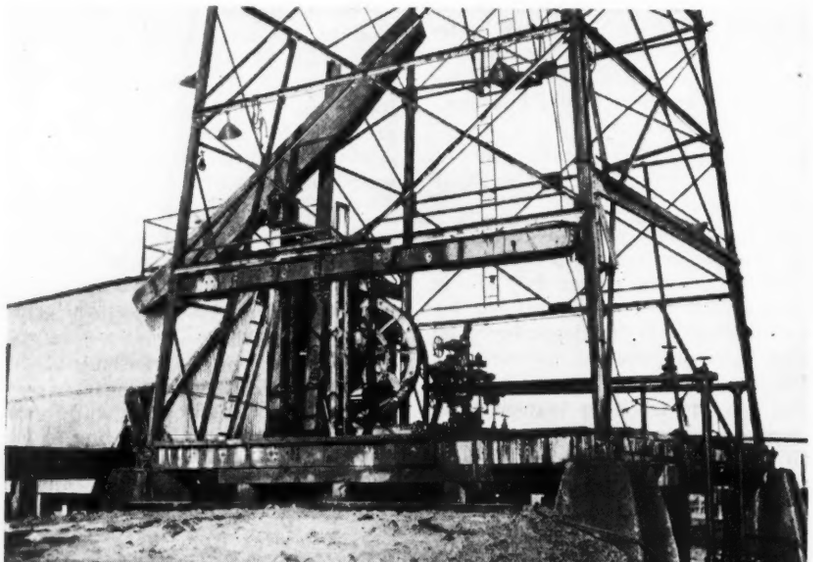


Fig. 10—Reyes No. 101, now used as a means of forcing 2,000,000 cubic feet of gas per day into the oil sands, showing well equipment previously used for flowing with gas lift.

drainage of the oil in the vicinity of the wells would facilitate the successful injection of gas, or at any rate, permit the use of a somewhat lower pressure than would otherwise be necessary.

Gas Introduced Into Wells

ABOUT Sept. 1 both wells were shut in and connected with the compressor plants operated, one by each of the two companies, where arrangements had been made to supply high pressure dry gas. Since early in September, from 1½ to 2 million cubic feet of gas per day has been forced into each well. The pressure on the wells has been gradually increasing, and in mid-September, was about 440 pounds per square inch. It is thought that the maximum rock pressure is about 460 or 475 pounds per square inch, and that, when this pressure is reached, movement of gas through the sands to the near-by producing wells may begin.

Meanwhile, some of the gas introduced is being taken into solution in the oil and the remainder is available for restoring the pressure in the voids left by oil drainage, to the original rock pressure. Later, the static pressure of the free gas may be expected to move oil to the near-by producing wells, and, as this oil approaches the areas of lower pressure in their vicinity, the gas now being taken into solution will be gradually released, and by its expanding effect will expel the oil from the sands into the corner wells.

It is thought that this system of pressure restoration cannot fail to result in a considerable increase in recovery, it being not unreasonable to expect that the ultimate extraction of oil will be double and perhaps three times the amount that could be secured by ordinary flowing and pumping methods. A detailed record of the performance of the wells likely to be benefited by the gas being forced into the sands, is maintained. This includes the oil and gas production, oil density, the computed oil-gas ratio, casing head pressures and record of volume of gas circulated.

Uniform Distribution Sought

SHOULD the gas show a tendency to flow toward one or two wells more than the others, these wells will be "beaned" until sufficient back pressure is established on them to bring about uniform distribution of the gas between all producing wells of the group. Should the gas show a tendency to channel through certain component members of the oil-producing sands, that may be coarser-grained or more porous than others, it is thought that this condition also might be remedied by applying additional back pressure on the producing wells. However, systematic coring in several wells has disclosed no important variations in the texture of the component oil sand members of the productive zone.

As soon as the technical success of the process is assured and there has been opportunity to estimate the economic results, if favorable, it is planned to apply the method over the entire field. This would necessitate the drilling of about 35 additional wells at an estimated cost of $2,800,000, and the provision of compressor equipment capable of compressing approximately 35 million cubic feet of gas daily to a pressure of 450 pounds per square inch or more. In addition, there would be a considerable expenditure on additional gas gathering and distributing lines, meters, pressure gauges, valves and other essential equipment necessary in securing proper control of the entire system.

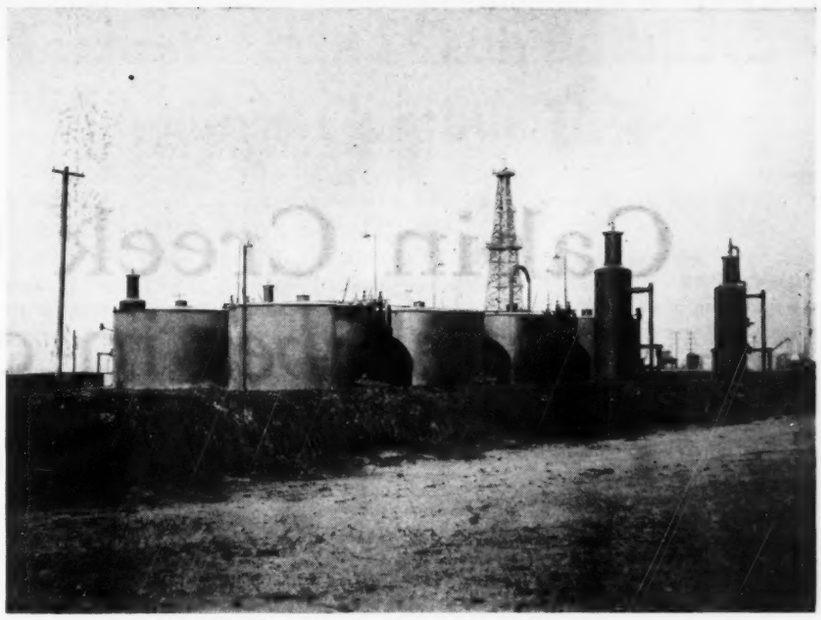


Fig. 11—A typical field installation of gas traps and vapor-tight receiving tanks on the Reyes lease, Dominguez Field, California

Outside Gas May Be Used

COMPUTATIONS indicate that more gas will be needed to maintain pressure on the residual oil in the sand, than that which the oil produced naturally yields. As drainage proceeds, it will probably be necessary to utilize gas from some outside source for this purpose—possibly gas from a lower oil zone yet to be developed or from reservoirs of dry gas in strata above the oil-producing zone. Should these sources fail, gas could possibly be piped from other fields in the Los Angeles Basin, though the natural gas resources of this region are being rapidly depleted.

The capital cost of compressor equipment for natural gas compression from 20 pounds to, say, 500 pounds per square inch, would probably be between $6000 and $7000 per million cubic feet of daily capacity. The two-stage compressors now commonly used for this service are direct connected to internal combustion engines operated by natural gas, but, if gas must be conserved to maintain the field pressure, it may eventually become too valuable to use for fuel purposes.

Hydro-electric power can be purchased for as little as 1.2-cents per kilowatt-hour from utility companies in this region, and in a near-by oil burning, high-pressure, steam-turbine driven central power plant, it is said that electric power is generated for as little as six-tenths of a cent per kilowatt-hour. If a decision is reached to apply the Marietta Process over the entire field, it would probably be found economical for the operating companies to compress gas for the entire field in one large, centralized and cooperatively-operated and maintained, electrically-driven compressor plant.

Protection Against Evaporation Losses

OPERATORS in the Dominguez Field have given particular attention to losses of crude by evaporation while in receiving tanks near the wells and in lease storage tanks. As a result, gathering and storage systems have been installed which it is believed, reduce such losses to a minimum. Small bolted, vapor-tight tanks are used, with the vapor space above the oil surface connected by vacuum lines with the gasoline-extraction plants. Figure 11 is a reproduction of a photograph of a typical group of tanks and gas traps installed by the Shell Company.

Leases Neat and Orderly

THE visitor in the Dominguez Field is impressed by the neat and orderly condition of the surface plant and equipment. Camp buildings, gathering and distributing systems show every evidence of careful planning and engineering design. Sumps in the vicinity of wells contain little or no oil or refuse. Practically the entire field is kept free of dry grass and inflammable vegetation. The operators take justifiable pride in the appearance of their properties and believe that it is reflected in a better attitude of field employees in their care of tools and other equipment, as well as in their general attitude toward their work.

Producing Companies Exchange Production Records and Sub-Surface Data

Another commendable feature that has been effected in the Dominguez

Cabin Creek Crude is *Amber* in color —*Not Red*

Through an error made by us in the Nov. 24th issue of National Petroleum News, the advertisement of

THE PURE OIL COMPANY

was printed in red and black ink, thus making it appear that the color of Cabin Creek Crude is red.

Cabin Creek Crude is *amber* in color and an amber colored ink should have been used in the advertisement in question.

We regret exceedingly that this error occurred.

The Editors
National Petroleum News

Field through the cooperative agreement, is a complete exchange of all pertinent data by the operating companies. Daily production records, well logs, and all data relating to operating conditions at individual wells in this field are freely exchanged between the Union and Shell field organizations. This has promoted the adoption of uniform methods of production and well operation and has to a large extent eliminated the competitive spirit.

Conditions Favorable For Long Productive Life and High Ultimate Recovery

THE future apparently offers promise of long continued profitable extraction and high ultimate yield for properties in the Dominguez Field. A yield of upwards of 30,000 barrels per acre has already been realized, and the wells are still highly productive and declining slowly. The future course of production is dependent to a large extent upon the results of experiments in the application of the Marietta process now in progress. There is little doubt of the success of these experiments from the technical standpoint: production will in all probability be increased, but at present, the actual increase in recovery that will result, is quite uncertain.

If production is stimulated sufficiently to justify application of the process over the entire field, and the process can be put into operation within a reasonably short time, the daily production of the field may be expected to again increase, perhaps to a rate equal to or greater than the peak of production attained by present methods of recovery in January 1925. From this new production peak, the decline may be no more rapid than that which characterizes present production.

An important consideration from the standpoint of ultimate profit to the operators, in applying the Marietta Process early in the life of the field, is the high present value attaching to the relatively large volume of production that may be realized during early life. If application of the process is deferred for a considerable period, on the other hand, the interest loss on deferred production may be largely offset by higher oil prices which, it is expected, will prevail in later years.

HOUSTON, Nov. 27.—Announcement has been made at Fort Worth of the sale by Johnson & McCamey of 800 acres of leaseholds in Winkler county, West Texas, to the Roxana Petroleum Corp., for a consideration of roundly $225,000. All the acreage involved is within a radius of two miles of the Westbrook et al Hendricks well, in sec. 42, block B-5, Winkler county, which at 3005 feet total depth is rated good for 150 to 175 barrels daily. The well originally showed for about 15 barrels daily, but production was increased by deeper drilling to its present depth.

Rochester Auto Club Ends Fight Against Gasoline Prices

Staff Special

ROCHESTER, N. Y., Nov. 29

WHEN Standard Oil Co. of New York reduced the price of gasoline 1 cent on Sept. 17 and 2 cents Oct. 22 the Automobile Club of Rochester "called off the dogs" and abandoned the "trust busting" activities through which it gained so much notoriety during the four preceding weeks. Of course the motor club officials know they did not bring about the price reduction, but it afforded a graceful way out of an awkward situation, so the oil men were glad enough to allow the club officials to go through the motion of "accepting the boquets."

It was about two months ago that the Automobile Club of Rochester attacked the local oil price structure through its secretary, George C. Donahue. According to Mr. Donahue, the club had been getting numerous complaints about the gasoline price in Rochester which a survey showed to be the highest in the state by a margin of 1 to 6 cents. Price comparisons were made on Socony gasoline. There were cheaper gasolines in Rochester than Standard's even then.

The automobile club did not threaten to go into the oil business. In fact no drastic measures were proposed. But Mr. Donahue kept pointing out Rochester's conspicuous position in the state's price structure, and he was quoted a great deal in the daily papers. Among other things, Mr. Donahue ventured the opinion, through the press, that tourists were avoiding Rochester by reason of its high gasoline price. There is no indication that he said this in fun. He meant for the public to take the idea seriously and not laugh at it.

The chief argument against the market structure was a comparison between gasoline prices in Rochester and those in Utica, N. Y., 136 miles away. The Utica price was 5 cents lower to the trade than the Rochester price. It is yet in fact. During this comparison it came to light that the service station spread is 2 cents in Utica and 4 cents in Rochester. This accounted for only 2 cents of the difference, however. The club people allowed 1 cent for a possible difference in freight between the two towns, but they argued for 2 cents off the Rochester tank wagon price and 2 cents more off the filling station price.

Discussion at Automobile Club headquarters developed the fact that certain Independent dealers were already selling 2 cents under the market. This brought up the matter of comparative qualities of gasoline, so the club set about to find out if the cheaper gasolines were as good as Socony. Nine samples of gasoline, each of a different brand sold in Rochester, were collected and turned over to the city chemist to test.

The tests were made but were never published. Neither the city administration nor the automobile club would take the responsibility for saying which of the nine gasolines was best. There is an understanding in oil circles that the city chemist told the agitators to be careful because petroleum experts differed about what actually constituted a good gasoline. The chemist could test the samples for color, odor, gravity, flash point, initial boiling point and end point but he could not say authoritatively which was the best gasoline. About all the public ever found out was that some of the high-priced gasolines and some of the cheaper ones were much alike. In fact there was not much difference in any of them except that the Ethyl gasoline had a unique color.

Even the agitation about the 4-cent retailers' margin did not change the situation. The garagemen came to the club officials and convinced them of the distributor's need for 4 cents in order to make any money on retail sales. In fact the Western New York Gasoline Dealers' Association is largely a Rochester institution, and its members are prepared to defend the economical correctness of the 4-cent spread they have. Naturally the garagemen have a little influence in the Automobile Club in town. They constitute its service department.

A member of the club who was, or had been, in the oil business is said to have been the leading figure in the attack upon Rochester's price structure. His main contention was that cheaper gasolines than Socony were on the market that were just as good as Socony. But this proved to be another matter upon which most motorists had made up their minds. They agreed with the ex-oil man, or they didn't, and there was not much argument.

AMARILLO, Nov. 27.—D. D. Harrington has resigned as head of the land department for the Marland Oil Co. in the Panhandle. He has associated with Lawrence Hagy of Amarillo.

C. R. Rolling has been transferred from Marland's offices at Wichita Falls to succeed Mr. Harrington.

BURLINGTON, N. C.—Carolina Petroleum Co. has completed a modern bulk station here, which has storage capacity for six grades of lubricating oil, two grades of gasoline and two grades of distillate, and one grade of kerosene, according to John F. Thompson, president. Tanks are above ground.

Refiner's Margin Has Shrunk, Jobber's Has Widened for Several Years

By D. W. Moffitt
Vice President, Mid-Continent Petroleum Corp.
Delivered Before A. O. M. A. Convention, Chicago

I FIND some difficulty in expressing my thoughts on the subject of the relation of the refiner to the jobber. This relation, like every other relation which springs from human activities, is, and will always be in the future as it has been in the past, the subject of eternal change.

Speaking, as I must, from the standpoint of one engaged in the refinery industry in the Mid-Continent field.

Speaking from the standpoint of what we usually term the Independent refiner and jobber, the development and maintenance of their place in this great service to the public has required, and has been accomplished by, team work. Without such team work, no such accomplishment as has been made would have been possible.

The jobber is like the soldier on the firing line, and to him the refiner represents the base of supplies. Without the base of supplies the soldier would perish and without the soldier the base of supplies would be useless. In military operations these two departments are recognized as equally important and absolutely dependent, one upon another, and because of that fact, equal protection is thrown about each. Whatever threatens the safety of one also endangers the other.

No Single Authority

THERE is, however, a fundamental and very important difference between the relation of the refiner to the jobber and that of the soldier on the firing line to the base of supplies, in that, in the military organization the two members of the team are responsible to one authority having command over both, while the relation between the jobber and the refiner is voluntary only, and dependent for the fairness of the relation wholly upon the good will of the members of the team.

	Price Crude	Gaso. Quoted Group 3	Freight Cost To Des Moines	Deld. Cost. Des Moines	Tank Wagon Des Moines	Spread Between Crude and Gaso.	Spread Between Cost and Tank Wagon
1919.....	5.357	17.875	1.782	19.657	22.75	12.518	3.093
1920.....	7.886	21.375	1.938	23.313	25.875	13.489	2.561
1921.....	4.436	15.062	2.409	17.471	23.075	10.626	5.604
1922.....	4.315	15.125	2.293	17.418	22.275	10.809	4.856
1923.....	4.464	10.562	2.178	12.740	18.450	6.098	5.709
1924.....	3.617	9.507	2.178	11.685	17.075	5.890	5.390
1925.....	4.106	10.653	2.178	12.831	17.466	6.547	4.635

When we think of the wonder of this business of ours, its worldwide scope, its universal use, the marvelous growth in its magnitude, the apparent opportunities it offered because of these and many other characteristics, we cannot wonder that there was drawn into the business many men who were not experienced, either in the article they were handling or in the methods of handling it.

Chief among the evils, early in this expansion program, was the tendency toward excessive expenditures in the building of stations. I believe there is great reason to think that these stations, some of which are real works of art, increasing as they must, and do, the ultimate cost of the material handled through them to the consumer, are fully justified by the addition they make to the love of beauty and the development of the esthetic taste of our people.

Another development, which kept pace with that just mentioned, was the very rapid duplication of equipment, those engaged in the industry evidently having adopted as applying to this industry the wisdom of Jonathan Swift who said a man who could make two blades of grass grow where one grew before was a benefactor of the race, so, by the same token, a man who could build three service stations where one could have served the business, was also in the same category, but this also may be justified by the growing demand for service.

Early Relationships

YOU will recall that in the beginning of this era of development of the jobber, the relation between him and the refiner was purely one of barter and sale as far as the furnishing of goods by the refiner to the jobber was concerned. At that time, as at this, the price at which the jobber could dispose of his goods was controlled by the prices made by various major marketing agencies operating in the territory in which the jobber had established himself.

In that cherished and greatly lamented past, there were occasionally short periods of time when the refiner was able to secure such prices for his goods as reduced the margin of profit which the jobber was able to make to such a figure as brought him within sight of grim disaster, and those jobbers who were in business at that time, and are still living, have a very clear understanding of how the refiner has felt for a great deal of the time since, and particularly how he feels at the present moment. We are told that necessity is the mother of invention, and the ingenuity with which the jobber handled his particular necessity, namely a more profitable method of buying his material, indicates that he not only had a mother for his invention but a father as well and some outside help.

The jobber proposed a system of buying under contract whereby he would be guaranteed a certain margin of profit, figured on the tank wagon price established in the field where he was operating.

At first our jobber friends were very modest, being satisfied with a mar-

gin of 3 cents per gallon below the tank wagon price, some even less than this, but as its always the case, when you work and live and deal long enough with a man you learn his characteristics, and the jobber soon learned that the refiner, whether he professed to be a Christian or not, had some of the characteristics of a Christian. These Christians are taught that if a man asks you for his coat, you must give, not only your coat but your cloak also.

The margins gradually widened, as far as the basis on which contracts were written was concerned, and in addition there was written into them all sorts of different conditions and terms, all of them intended to give the jobber greater security in the operation of his business.

The following statement, showing the changes in margins of the refiner and jobber will perhaps be illuminating. All prices, including crude oil, are in gallons; the statement covers a period of seven years; I have used 35.9° crude oil because I was able to find a completed statement for the first five years based on this grade of crude, and it is fairly representative of the average; the quoted price of gasoline is f.o.b. Group 3, Oklahoma; the freight rates are Group 3 to Des Moines; the delivered cost is figured at Des Moines; the average tank wagon is the Des Moines tank wagon; there follows in the next to the last column the spread between the cost of a gallon of crude oil and the selling price of a gallon of gasoline and finally the margin of profit of the jobber at Des Moines for the years shown. As close a figure as possible has been used in making this table and most of them have been checked with Mr. Davis, Statistician for the Western Petroleum Refiners' Association.

Refiners Margin Shrunken

I WISH to call your particular attention to the tremendous shrink in the margin of difference between the cost of a gallon of crude oil and the price of a gallon of gasoline f. o. b. Group 3 over this period of seven years, while at the same time you will not a very great increase in the margin of the jobber between his cost and the tank wagon price.

The widening margins presented a constantly increasing allurement for new, and in many cases, inexperienced jobbers to engage in the business; the wide margins induced an unwarranted expansion in equipment on the part of those engaged in the business; the expansion program had the effect of reducing the gallonage handled through each unit and hence increased the overhead expense, and, while this may not have been the prime cause, it certainly accentuated the desire for increased gallonage, and into the marketing situation there came, due to wide margins, expansion programs, increased overhead and, in some cases, lack of experience in the business, all sorts of undercover, and also open, devices for obtaining business, rebates, payment of rentals for customers, furnishing of pumps and other equipment, furnishing and maintenance of signs, free painting of buildings and a host of other methods of making trade with the various jobbers attractive, and to crown this orgy of folly came the Q. D. A. arrangement, this old man of the sea with his legs coiled around our necks, sticking to us with his death grip, and whom we seem unable to make drunk enough to get rid of him, as Sinbad got rid of his counterpart.

It is argued by some that it is right in principle, because quantity buyers should be given a better price than those who buy less, but we do not find this principle applied in any other branch of the industry. The man who produces 10,000 barrels of crude from one well is paid the same price as the man who produces one barrel from one well if it is the same quality. Neither do we find it applied to the refinery industry as the man who buys 10 cars of gasoline pays the same price as the man who buys one.

How About the Refiner?

WHILE these developments have been occurring in the realm of the jobbers' activity, what has been happening to the refiner?

What expansion there has been has, in most cases, been dictated by necessity for greater efficiency, for the necessity for a better balanced plant and the development of equipment which would secure greater recovery from a barrel of crude than was possible before, and all of this was due, in great measure, to the constantly narrowing margin of profit, on the one hand, or the constantly widening margin of loss on the other, so that the adversity of the refining department of the industry was not an entirely unmixed evil, but did have, as is often the case, the effect of bringing into force this law of necessity which is the mother of invention and has built into this department of the industry an efficiency and has compelled the adoption of policies of economy which, without doubt, would have been otherwise unknown.

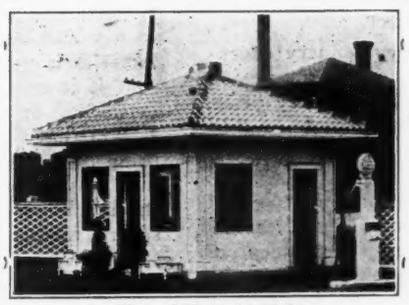
We might be willing to admit that beauty in the retail end of the business is justified by the development of the aesthetic and our love of beautiful things. But the refiner is just a little, perhaps a good deal, inclined to think that he has been asked to furnish too much of the funds for this program of art and beauty and business expansion on the part of the jobber, and he has long since learned that a request from the jobber is a command.

Still Much to Do

THERE is still much to do, as there will ever be, in the refining industry in the saving of waste and the building of economy and efficiency, but I venture the assertion that those plants that have met the constantly stiffening demands of competition by the adoption of these methods in the past will find them insufficient in the future.

There is, however, in all suggested adjustments, a principle which has in the past, is today and I presume will in the future, rule most of our human activities. This principle is that which inclines us to supply our own needs by taking that from some one else which we think we should have. It is that business principle which says to us that this world is a treasure chest; that it is filled with riches for those who have the power and inclination to take them; that it is our business and privilege to take from this chest, by whatever means we find necessary for the purpose, whatever of this store of riches we are able to get. In carrying out this philosophy is developed all the business ills of which we complain, and particularly of those business ills which are the subject of this hour's discussion.

Let me close by saying that in what I have said there is no intentional criticism of anyone. If I have mentioned inequalities and injustices which I believe exist, I believe they exist because of those characteristics which govern all of us alike, which have governed us since the world was, and they must be cured or endured by whatever methods we are able to devise bearing in mind our common failings and weaknesses, with sympathy and charity toward all and bearing malice toward none.



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Pay Sales Force Percentage of Price Secured

By Warren C. Platt
Editor

HAVEN'T the METHODS of compensating refinery sales departments, and carload marketers, had something to do with the continued failure of refiners to get what they should for their products?

The more this is studied, the more it seems to get down somewhere near at least one of the roots of the refiner's problem of getting a proper price for his product.

The answer suggested is, wouldn't compensating the sales department on a percentage of the price obtained tend to make that department fight harder for price as well as gallonage?

Refinery sales departments have been paid on a straight salary basis almost without exception. That is true from the vice president in charge of sales on down through the ranks. Carload marketers, where they did not make outright purchases and outright sales on their own account, have been compensated on a basis of an eighth of a cent or so per gallon sold. In no company, to our knowledge, has a commission on the dollar of sales been used.

People fight in this world for what is of selfish value to them. The word "selfish" is not used by way of criticism. It is a selfish desire to eat and live and own an automobile that makes the world move. If it wasn't for that desire on behalf of self, nobody would work. People do those things that are necessary to get what they want out of the world. If, in order for the refinery sales departments to get these necessary or delightful worldly goods, it was necessary for them to get price, as well as gallonage, wouldn't the ingenuity and will-power of the department eventually get the price?

This plan is used in practically every other business. At one time salaries were almost the rule. Today they are almost the exception and where they are used certain standards of performance are almost invariably set up, so that the same end is accomplished as if some commission basis of compensation were used.

Measure Is Units of Output

THE success of Henry Ford, and almost every other successful manufacturer today, is because man's effort is measured in definite units of output rather than in the amount of time devoted to the company. The result has been, as everybody knows, that mankind has schemed and figured many ways of increasing the output of these units, in order to get more of them out in a day's working time and thus to get for his own use more dollars for the necessities and pleasures of the world.

In writing this we do so with the utmost respect for the refinery sales organizations and carload brokers in their effort to sell oil at good prices, but we submit, and thousands of sales managers in other lines of work, psychologists and all that will agree with us, in order to get the utmost out of a human being for a certain object, you must make him personally interested in achieving that object.

It would be a very simple thing for every refinery executive to put his sales executives, at least, on a commission basis. The price of crude, which affects the refinery price, is something over which the refinery sales department has no control, but what it has a control over though, is the margin between the price of crude and the price at which the goods are sold. Say the price of Navy Gasoline is 10 cents and a prorata share of the cost of the crude 5 cents, leaving a margin of 5 cents in which the refinery sales executive would be personally interested. His aim should be not only to sell all the gallons that the plant produces, but to increase that margin over and above the cost of crude from 5 cents to 6 cents and when he gets it to 6 cents try and raise it to 7 cents. How much it may cost to produce that gasoline is no concern of his. What he is interested in is getting the maximum possible spread within reason.

Therefore his interest should be kept on that one point all the time.

Methods to Figure Compensation

THERE are several simple ways in which refinery sales executive could be compensated. Say the margin at present is 5 cents. Then he could be paid a bonus of $100 or $200 or some other sum per month for every eighth or quarter of a cent that he raises this margin, basing it on the average of one month as against the previous month.

Another simple way would be, as practically every plant knows substantially how much gasoline it is going to have for sale the next six months or year, to pay the chief sales executive a percent of this margin times the number of gallons sold. In other words, pay him a commission on the total dollars of his sales less the cost of the crude.

From all this it is not to be supposed that the refinery executive is going to see how little he can pay the sales department, but his aim should be to see how much he can pay the sales department for increasing the margin on which the refinery does business. Present salaries could be used to start with. If a sales department is worth its present cost to sell petroleum products at a loss or only at a break-even figure for the refinery, then if it raises the operating margin for the refinery, it certainly ought to be worth more money to the refiner.

So far as the carload marketer is concerned, wherever he operates on behalf of the refinery it should be on a percentage of the dollars of sales and not on a commission of so much per gallon sold.

Measure Dollars, Rather Than Gallons

THE refiners have thought too much of gallons of sales—they talk of gallons of sales—their records are of gallons of sales, whereas they should think in terms of dollars of sales. It is dollars that pay the bills and not gallons. Gallons must be converted into enough dollars to keep the refinery running. If a refinery can make more money by selling fewer gallons, it is good business for it to do so.

The psychology of refinery sales departments should be changed. Of a Monday morning instead of telling the refinery sales department that it has a million or two million gallons of gasoline to sell that week, the chief refinery executive should tell the sales department that it must sell $100,000 worth of gasoline or $200,000 worth of gasoline and that it has only so many gallons to do it with, but that so much money has to come in at the end of the week. The same is true of fuel oil, gas oil, lubricating oil. They should be spoken of in terms of dollars.

This is theory in the oil business but it is fact in practically every other business. Oil is certainly a strange industry if it cannot be made to work there also.

If a sales manager or vice president in charge of sales knows that, if he doesn't raise his average margin from 5 cents to 5½, it will cost him $100 or $200 in cash that otherwise would be his, he is going to make a much greater effort—he is going to devise some way of getting that half cent if it can possibly be done. After he has earned that extra $100 or $200 a few times, he is going to make doubly certain that the price he puts on the goods will continue to bring in that extra money. He is going to be a lot rougher with any salesman who comes back and says "I can't sell the so-and-so oil company at 10 cents, but I can sell them several million gallons at 9¾ cents." He is going to tell that salesman where to head in at. He is going to tell him to go and get 10¼ cents for it and that salesman is pretty much going to do it.

Personal Interest Is Big Factor

WE REALIZE that certain petroleum products are stable commodities and that in a general way and for practical purposes there is little if any difference between

some of the products of the various refineries and that, on a stable commodity, the sales department of a single company cannot raise its price at least much above the average. However, every sales department has some things to talk about, possibly a slightly different product, a slightly better service, favors that have been done in the past and so on. But however that may be and how little they may have to talk about, or think they have to talk about, the fact remains that, if every sales department was given a personal interest in the price, even of these stable commodities, the tendency would be to increase that margin to the refiner.

The buyer, that is the jobber, need not worry about the height to which this price may go, because there are many factors that would act as a brake on the situation. The jobber is vitally interested in seeing the refiners make a profit on their refining operations—otherwise, the refiners cannot be expected to remain in business or otherwise, they go into the marketing business.

One of the chief reasons for refiners going into the marketing business is because they have not been able to make a profit on their refining operations—that is, on their tank car sales. The tank car price, even though stocks of many products in the past year have been exceedingly low, has not been sufficient to make the refinery money. The refiner sees the jobber with a comfortable spread, so he goes into the station business. If the refiner could always be assured, providing he gave good goods, good service and had the proper management, of getting a reasonable return from his refining operations, he would not go into the station business to anything like the extent he does now.

We submit that one of the chief reasons why the refiner has not gotten a proper return on his refining operations is because he has been using the wrong method in compensating his sales department.

Wisconsin Jobbers Plan Big Winter Frolic

Staff Special

MILWAUKEE, Nov. 29.—Great preparations are under way for the second annual winter frolic of the Wisconsin Independent Oil Jobbers Association in the Pfister Hotel here, Jan. 10, 11 and 12. An equipment exhibit will accompany the meeting and more spaces have been sold already than were available last year. Association authorities are urging members to withhold their buying for spring until they come to the state's big annual event.

"Better Merchandising" is the topic around which every detail of the program is being arranged. There are four general questions in regard to the oil jobbing business in Wisconsin that the oil men will discuss at this meeting and try to answer. They are:

What have been the benefits of two years of price posting?

Has our three years of poster advertising been worth while?

Is our service to the public equal to that of the big competitors?

Is the industry in Wisconsin in danger of over-expansion?

R. A. Overholtzer, secretary of the organization, has already arranged an imposing array of speakers for the meeting. Among them are C. W. Hunt, chairman of the Federal Trade Commission, Washington, D. C.; T. A. Boyd, chief of the fuel division of General Motors Research Corp., Detroit; Judge E. Allen Frost of Chicago, and others. The evening of Jan. 12 will be devoted to banquet and dance. Oil men are invited to bring their wives or lady friends and enjoy the frolic thoroughly.

Raymond Shaw, director of publicity for the Independent Oil Men of America, is availing himself of the drawing power of this meeting to call a number of the N. P. M. A. advertising group together for a discussion in Milwaukee at the same time. Several of these regional meetings have been planned by Mr. Shaw, probably others of them will be coincidental with state meetings of oil jobbers throughout the middle west.

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Jobbers! Write for our proposition

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Please send me complete descriptive literature of your NEW Improved Barrel Rack.

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THAT'S the kind you need. And the fact that our hand blown bottles have enjoyed consistent preference in the oil industry for years is pretty good evidence of their unusual merit.

To explain this preference is to state the policy of the Illinois Glass Company. We try to make the best container possible to suit each particular requirement, and we provide a service in line with the quality of the product.

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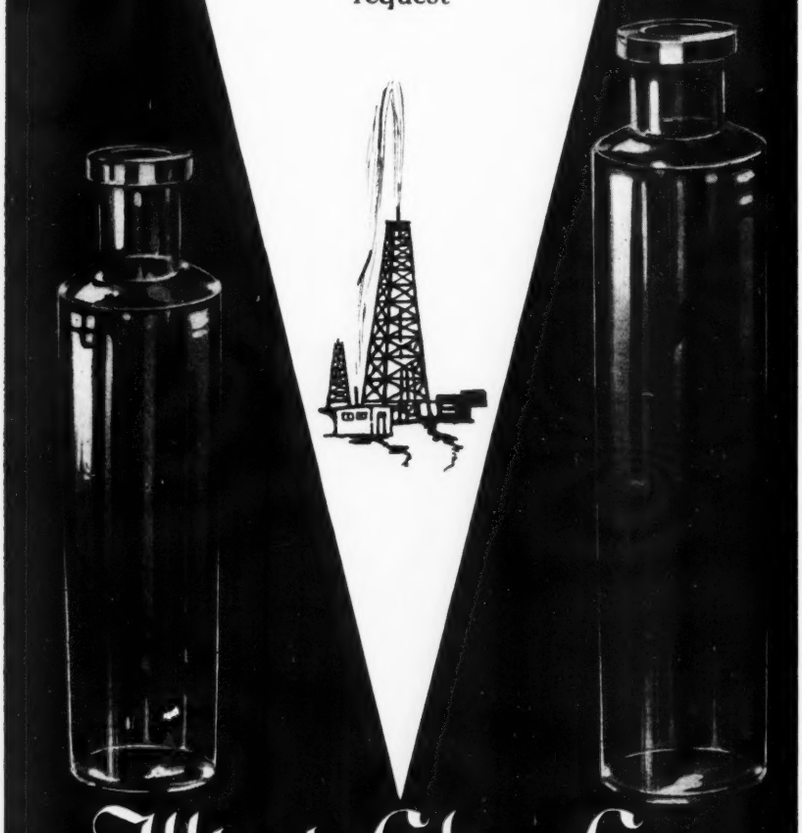

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Alton Ill.

Alcohol-Water Mixtures For Radiators

Staff Special

CHICAGO, Nov. 27.—An interesting piece of data was sent out to National Petroleum Marketers Association members this week from the Chicago office, telling them how to recommend the use of denatured alcohol in customers' radiators. The kernal of the story was in a small table showing relative proportions of alcohol and water in relation to the lowest expected temperature. The table follows:

Alcohol Parts	Water Parts	Freezing Point
5	95	30
15	85	20
25	75	10
30	70	Zero
35	65	—10
40	60	—20
45	55	—30
55	45	—40

For example, it was illustrated in the bulletin, suppose the owner of a Marmon car of 1923 model lives in a locality where he can not reasonably expect weather colder than zero. His radiator holds 5½ gallons, or 22 quarts. For zero weather his radiator liquid should be 30 per cent alcohol, and 30 per cent of 22 is 6.6 quarts. In other words, when he fills his radiator 6.6 quarts of alcohol should be put in with 15.4 quarts of water.

Jobber Rushed by Calls For Radiator Fluid

Staff Special

CHICAGO, Nov. 29.—The arrival of cold weather in Chicago has kept one department of Apex Motor Fuel Co. working overtime. That is the department that compounds and markets the new Apex radiator fluid, introduced on the market this fall.

The product is compounded by a secret formula, according to C. S. Rosenthal, head of the organization, will not evaporate, will not freeze and will not do any of the objectionable things that some compounds are accused of doing, nor gum like wood alcohol sometimes does. It has been advertised and offered for sale in Chicago only, and the plant was reported behind with orders.

Apex Motor Fuel Co. is selling the liquid through its own stations as well as through garages and accessory stores. Each wholesale order was accompanied by some printed matter when it was shipped to the dealers. Besides this circular matter and window cards for the dealers, Apex put on an outdoor poster campaign. Mr. Rosenthal says he will have difficulty supplying the Chicago demand this winter and will not be able to offer the material to out-of-town oil men before next fall.

Regular Drills Keep Refinery Fire Brigade Constantly Ready for Action

By Paul Truesdell
N. P. N. Staff Writer

CLEVELAND, Nov. 29

NEARLY everybody can remember the old volunteer fire departments that not so long ago constituted the only protection of towns and cities against fire. When the fire bell rang or the fire whistle blew, every member of the fire department, whatever he was doing, rushed to the engine house or the hose cart house to which he was assigned. From these stations, the mobilized forces rushed to the fire with their apparatus.

They did not always know exactly where to find the fire or what to do when they got there. But altogether they did pretty well and they certainly made a proud and noble showing when they turned out on parade days or to entertain visiting firemen from other towns.

The Conewango Refining Co. at Warren, Pa. has a volunteer fire department. Every man who works in the refinery is a fireman. But there are several differences between this refinery fire department and the old time city volunteers. At the Conewango they have no brilliant red shirts, no patent leather helmets or silver plated speaking trumpets and they hold no parades.

However, each man of them knows when the fire signal is sounded, just where he is going and what he is going to do when he gets there.

The Conewango is one company that is taking the fire protection program of the National Petroleum Association very seriously. The plant is an old one, perched on the side of a hill, with its equipment close-set and with much wooden construction. Harry R. Lewis, manager of the plant realized the possibilities of a bad fire and set out to guard against them to the greatest degree possible.

The Fire Fighting System

WHEN the Fire Marshals' Association of the National Petroleum Association was organized with Houston Dunn of the National Petroleum Mutual Fire Insurance Co. as managing director Mr. Lewis was quick to see its possibilities and join the association. He appointed James H. Herbert fire marshal of the Conewango plant.

Mr. Herbert set to work to devise the most efficient fire fighting system possible with the means at his command. Having worked out his system, he told the refinery workers about it in the following circular letter:

"Under a fire-fighting system, the refinery has been divided into seven sections; namely, Sections 2, 3, 4, 5, 6, 7 and 8. Whenever the whistle blows two times you will know that the fire is in Section 2 and so on for each section. The divisions are as follows:

"Section 2—Office, laboratory, filter house No. 1, filter house No. 4 and wash filter house.

"Section 3—Boiler room, stills, loading rack, central pump house and tanks in the immediate vicinity.

"Section 4—No. 2 filter house.

"Section 5—Barrel house, barrel shed and mixing tanks.

"Section 6—No. 3 filter house and run-down tanks.

"Section 7—Settlers, engine room and earth shed.

"Section 8—Tanks on hill.

"Under each section, every tower man has a definite duty to carry out. The duties will be outlined and it is up to each man to be thoroughly acquainted with each duty as outlined for him. Fire drills will be held once a month.

"When every man knows his duty thoroughly there will be no fire which cannot be stopped within a very few minutes. Let us all work together on this and feel free at all times to make any suggestions which you think would better the present method."

There are 14 men in the Conewango fire brigade, that being the number that are constantly on duty on both day and night shifts. There are about 18 others who work on the day shift only and these are given various auxiliary duties but the whole fire fighting system is keyed on the 14 men who are sure always to be on the job.

Refinery Laid Off in Sections

IN the stillman's shanty, which is a central point in the plant, is a scale map of the yard showing clearly the boundaries of each of the seven sections. Also, there is a chart showing the duty of each man in case of fire in either of the seven sections. This chart also is placed at a central point in each of the other sections where men employed in every part of the plant can see it readily. Also, at a central point in each section, where the chart is located, is a push button of an electrical signal system.

When one of these buttons is pushed the required number of times to indicate the section in which the fire is, it sounds in the boiler room. For the signal in the boiler room, a horn with a peculiar squawking voice was decided upon rather than a bell because it is sometimes hard to distinguish the number of times a bell rings. With this horn it is easy and it is impossible to mistake its meaning because it sounds like nothing else in the plant. When the fireman on duty gets the signal on the horn, he immediately blows the whistle which sends the news to everybody in the works that there is a fire and where it is. During drills, the signal is only sounded once but in case of fire it is repeated four times.

The fire-fighting equipment at the Conewango consists of a Foamite system, located on the hill above the plant and connected with all the major tanks. The Foamite outfit consists of a mixing tank, agitator and steam pump for distributing the foam solution to the tanks. In addition to this, the hand equipment consists of three 40-gallon Foamite extinguishers mounted on carts, six five-gallon Foamite extinguishers, and 17 hand soda and acid extinguishers and six 2½ gallon foam extinguishers.

The three 40-gallon wheeled extinguishers are placed at the most important parts of the plant from the standpoint of fire hazard. And keeping them unobstructed so that they can be reached and moved instantly, has not been lost sight of. One of the wheeled extinguishers is placed in one of the filter houses, for instance, at a considerable distance above the ground. It is very hard to get one of these extinguishers down a flight of steps. To overcome this difficulty a pair of tracks, made of channel irons, has been bolted to the steps at one side so that one man if necessary could get the extinguisher down on the ground. The space around all the extinguishers is kept rigorously clear of all obstructions.

Houston Dunn is one of those who believes that not discounting at all the value of foam and carbon tetrachloride and acid and soda systems and all other modern forms of fire fighting equipment, a plentiful water supply is after all the best safeguard against a refinery fire. Water is not enough alone, all the other possible agencies are needed, but without a good water supply the fire hazard is greatly increased.

Has Plenty of Water

THE Conewango plant has plenty of water. There are 11 hydrants distributed over the plant, six drawing

their supply from a well in the refinery yard and five from the Warren city water system. Each of the hydrants is equipped with at least 150 feet of hose. The hose is housed from the weather and is kept in good conditions and in shape for instant use by constant inspections.

Having decided on his fire fighting system and given instructions to the men as to their duties at fires in every section, Mr. Herbert started out by putting on a fire drill each week until the men were thoroughly familiar with their duties and could carry them out without any hesitation. Drills were held alternately on the day and on the night shift so that all the men would become quickly familiar with the system. The weekly drills were continued until all the sections had been covered.

Mr. Herbert does not believe as some authorities do that a fire drill ought to be a surprise party. There is too much danger that a real fire might occur at any time. If the men were being constantly called on to run to fires and found each a false alarm, he believes they might get the feeling it was all a joke and might not be so alert if a real fire occurred.

So he tells the men every time there is to be a fire drill, about the time the signal will come. So if an alarm is turned in at any other time than the specified hour, the men will know that it is a real fire and not just another drill. After having covered each of the sections with a fire drill to make sure that the men know just what to do, he has now cut down the drills to one a month.

One feature of Mr. Herbert's system which, it seems, should add much to the confidence of the men is that no man is assigned to some duty alone at a distance from the rest. At every key point, at every water hydrant at every foam outlet and at every cart extinguisher there will be at least two men within a few seconds after the fire whistle announces the location of the blaze.

Extinguisher to the Front

THE key to the whole system is to get as many men as possible, armed with hand fire or wheel fire extinguishers to the scene of the trouble in the shortest possible time. About the only men who do not change their stations when a fire alarm rings are the stillman and the fireman. The stillman can do more good right at his station and the fireman must be in the boiler house to keep up plenty of steam for the Foamite pumps and water pumps. Every man takes an extinguisher to the scene of the fire first and then goes to the big equipment. Thus, there will be 12 foam extinguishers on hand immediately at the scene of the fire. There are few fires, authorities say, even in a refinery, that cannot be put out if two or three fire extinguishers are turned on them within the first few seconds after they start.

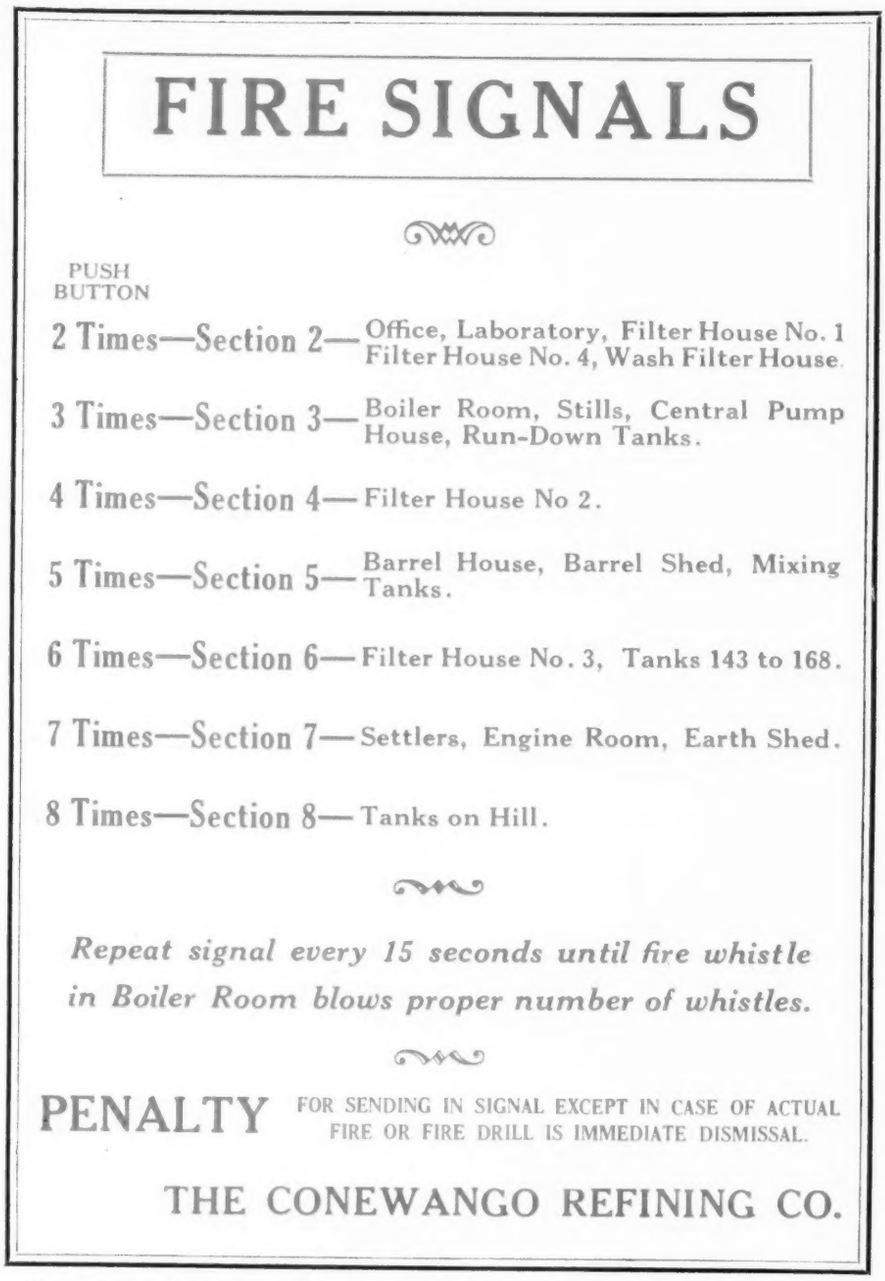
Mr. Herbert says that his men get to their stations within a minute and a half, with all their apparatus in order for action, after the alarm sounds.

A fire drill was put on for the benefit of the writer a few days ago at the plant and although he did not hold a stop watch on the men it seemed that they were certainly at their stations ready for action in less than a minute. They have entered into the spirit of the drills heartily.

On that occasion, the whistle cord in the boiler house broke as the fireman grabbed it to yank out the fire signal. But that was not allowed to delay the sounding of the signal. Right up on top of the boiler went the fireman and sounded the alarm, not more than four or five seconds being lost at the most.

One man is assigned, on the sounding of the alarm, to run to the Foamite pump house and start the agitating machinery that mixes the solution and the pump that drives it around to the tanks. The same man also starts the Foamite equipment when a thunderstorm is brewing so that the foam is ready to fight a fire in case a tank or some part of the plant is struck by lightning.

No wonder Houston Dunn, the managing director of the Fire Marshals Association, stated publicly at the fall meeting of the National Petroleum Association at Atlantic City that he had not obtained such cooperation in the fire protection program from any company as he had from the Conewango Refining Co.


FIRE SIGNALS
PUSH BUTTON
2 Times—Section 2— Office, Laboratory, Filter House No. 1 Filter House No. 4, Wash Filter House.
3 Times—Section 3— Boiler Room, Stills, Central Pump House, Run-Down Tanks.
4 Times—Section 4— Filter House No 2.
5 Times—Section 5— Barrel House, Barrel Shed, Mixing Tanks.
6 Times—Section 6— Filter House No. 3, Tanks 143 to 168.
7 Times—Section 7— Settlers, Engine Room, Earth Shed.
8 Times—Section 8— Tanks on Hill.
Repeat signal every 15 seconds until fire whistle in Boiler Room blows proper number of whistles.
PENALTY FOR SENDING IN SIGNAL EXCEPT IN CASE OF ACTUAL FIRE OR FIRE DRILL IS IMMEDIATE DISMISSAL.
THE CONEWANGO REFINING CO.

This is the placard, copies of which are posted at the central points in each of the departments of the Conewango plant to make the men familiar with the fire fighting system.

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In and Around San Angelo

By Paul Wagner

THE second annual west Texas petroleum convention, which was to have been held at San Angelo Nov. 19 and 20 has been postponed until Jan. 20 and 21. Inability of several operators and executives to attend then caused the postponement. The "Tulsa of West Texas," as San Angelo is deservedly coming to be known, has been making plans ever since the first convention last fall to entertain again the horde of visitors certain to attend. It is even better prepared to handle the crowds now than previously, due to the large growth the town has had and also because of the activities of the enterprising West Texas Petroleum Club. This club, which has rooms in the St. Angelus hotel, has been an important factor in developing plans for the January convention.

* * *

PRESIDENT Levi Smith of the Big Lake Oil Co., whose company has produced more than 60 per cent of the 15,000,000 barrels of high grade crude so far recovered in the Big Lake field of Reagan county, is president of the West Texas Petroleum Club. Associated with him in the club's official family are H. H. Lee, vice-president, Republic Production Co., San Angelo; John Hoffer, deputy oil and gas supervisor of the Railroad Commission of Texas; Rupert P. Ricker, Ricker & Dodson, petroleum geologists, and Herbert O'Bannon, cashier, San Angelo National Bank. Lee and Hoffer are vice-presidents of the club, Ricker is secretary, and O'Bannon is treasurer.

* * *

THE growth of San Angelo, due entirely to oil, is shown in the following figures: Postoffice receipts jumped from $48,836.56 in 1922 to $54,452.27 in 1923, the first year of oil production in the region; in 1924 to $60,758.88; in 1925 to $70,062.51, and in the first seven months of 1926 to $48,211.08.

Building permits in 1924 totalled $612,901; in 1925 $1,635,766, and in the first seven months of 1926 $1,922,919.

Assessed valuations of property are estimated at $10,793,000 for San Angelo in 1926 as compared with $9,661,490 in 1924.

San Angelo's population now is estimated at close to 25,000, the oil metropolis of West Texas having grown easily from 5000 to 6000 in the last two years.

* * *

THE Exploration Co., which is taking an active part in wildcatting operations in the area between production in west Texas and the Artesia, N. M. field, plans to extend its activities since interesting an eastern banking group in its affairs. Announcement was recently made by T. R. Cowell, Jr., president, and A. S. Everest, general manager, that a large block of stock had been taken over by H. Allen Miller, New York banker, and the following Pittsburgh men: Nathaniel Holmes, retired banker; J. H. Holmes; T. R. Cowell, Sr., and Wittmer Bros. San Angelo men active in the affairs of the company include, besides Messrs. Cowell and Everest, M. L. Mertz, vice-president, who is also president of the San Angelo National bank; J. C. Develin, treasurer, also president of the Concho Valley Loan & Trust Co.; A. A. DeBerry, director and head of the land department, and B. F. Weekly, director and head of the Weekly Oil Corp.

The Exploration Co. was organized last February by San Angelo capital. Since then its operations have been expanded until it frequently has had as many as eight or 10 test wells drilling in various parts of west Texas.

* * *

WHEN Sir Frederick Hurdle of London was out in the west Texas region a year ago he offered to build a courthouse at the railroad flag stop of Hurdle, Upton county, if oil were found near that place and the citizens would vote the removal of the county seat.

It requires only the action of Upton county voters and Sir Frederick's fulfillment of his promise to provide a "free courthouse." Production three miles northwest of Hurdle was proved recently when the Wentz Oil Corp. got oil in its Sherk test. Incidentally that test extended the Hurdle district production three and a half miles northeast from an earlier development, which lies west of the railroad stop of the same name about seven or eight miles. Upton county court sessions recently have been held in the school house at Rankin.

* * *

MCBURNETT Hotel Co., which operates the St. Angelus at San Angelo and another in Best, Reagan county, is going ahead with construction of an 85-room U-shaped building at McCamey, Upton county, to cost approximately $25,000. McCamey is an oil town built in its entirety on the Kansas City, Mexico & Orient railroad since the completion of the Hurdle district discovery well in Upton county about a year ago. It was named after George B. McCamey, drilling contractor of Fort Worth, who sold the discovery well and surrounding acreage to the Republic Production Co. soon after the first well came in.

WEST Texas operations of the Gulf Production Co. hereafter will be conducted through a zone office at Midland, about 45 miles from the McElroy ranch development of the Gulf on the Crane-Upton county line. This office is in charge of M. O. Boring. The distance from San Angelo to the McElroy ranch field is nearly 140 miles and the Gulf's prospective oil lands in the territory mentioned extend largely in the direction of Midland from McElroy ranch development. With the exception of the Gulf and the Big Lake Oil Co., the last mentioned maintaining its headquarters at the field town of Texon, in Reagan county, virtually all other companies active in west Texas operate through San Angelo.

* * *

H. A. MELAT, manager of production in north and west Texas for the Gulf Production Co. has developed a color scheme that will make the company's McElroy ranch field a landmark to be seen for miles in either direction. The buildings at McElroy camp will have painted on their roofs the familiar orange disc used by the Gulf in its marketing division advertising, except that instead of bearing the slogan, "That Good Gulf Gasoline," the single word "Gulf" will appear inside the orange disc. Mr. Melat, who is hale and hearty after recently celebrating his 69th birthday anniversary has returned to Fort Worth headquarters after a vacation trip to his old home in Pennsylvania.

* * *

THE name San Angelo recently was placed in the nomenclature of geological science. This came about when the Texas Bureau of Economic Geology issued Bulletin No. 2607 relative to what is now termed the San Angelo formation. This mappable horizon, which conforms to the Duncan sandstone of Oklahoma, has been traced across a broad area from west Texas to Oklahoma by Dr. J. W. Beede and D. D. Christner, authors of the bulletin. Dr. Beede is now chief geologist of the Dixie Oil Co., Inc., with offices in San Angelo, and Mr. Christner is division chief geologist at San Angelo for the Marland Oil Co. of Texas.

* * *

ED. S. HUGHES, Abilene wholesaler, is getting his big money out of oil royalties instead of hardware. About nine years ago he bought several thousand acres of ranch land in what is now the Hurdle district at prices not exceeding $3 and $4 an acre. Some of the best wells in the field have been drilled on his land by the Dixie Oil Co., Inc., and the Marland Oil Co. of Texas.

* * *

THOSE familiar faces around the St. Angelus lobby—yes, you're right, there's Jimmy Charlton, California Co's. land department at Colorado City; Jim Birmingham, Simms Oil

Co., Dallas, who spends most of his time in west Texas; Frank Miller, San Angelo lease broker; Dean W. Cummins; who represents the Marland pipe line interests; W. H. Winn Marland land department; N. E. Tanner (why will they call him Northeast Tanner), Humble land forces; Phil Maverick, consulting geologist; Kemper Kimberlin, who is now wildcatting "on his own;" M. D. Bryant, drilling contractor, and W. H. Wortham, the "Big Boy" of the plains who knows everybody from San Angelo west and then some more in other directions.

* * *

H. D. AGGERS, general superintendent, and R. E. Cotulla, geologist, are looking after west Texas operations of the Wentz Oil Corp., the headquarters of which are at Ponca City, Okla. Max Morgan, chief geologist, makes frequent trips to the region west of San Angelo from Ponca City.

* * *

HOMER FREED, who represents the Humphreys Corp. in West Texas, is making his headquarters at San Angelo. The Humphreys Corp. is drilling wildcat test wells in Reagan county and has taken up considerable acreage in Pecos county.

Muskogee Oil Man Dies

MUSKOGEE, OKLA.—D. C. Morrison, prominent oil operator and attorney, died Nov. 19 at his home here. He was 65 years old.

Mr. Morrison's last company connection was with the Eastern Oil Co., where he had charge of legal and land matters until the Tidal Oil Co. acquired the eastern properties several months ago. He then moved from Tulsa to Muskogee, where he had lived prior to his connection with the Eastern Oil Co.

Mr. Morrison came to Oklahoma from California where he had been a district judge. This was in 1904. With John L. Wisner he opened the first oil field in the Muskogee district.

His death followed a stroke of paralysis last August.

TULSA—Mrs. Carol Strecker McConnell, wife of Glenver McConnell, of the engineering department, Roxana Petroleum Corp., died Nov. 18. She came to Tulsa in 1922 with her husband from Marietta, O., her girlhood home. Both were graduates of Marietta College.

Funeral services were held at the home in Tulsa on Friday, and burial was in Marietta.

WASHINGTON, MO.—Washington Oil Co. opened a new service station here recently and sold 3600 gallons of gasoline on the opening day.

A 34,000 gallon storage tank has just been installed for H-C and High Test gasoline and lubricating oil in tank car lots, according to George Hausmann, Jr., manager.

FLUCTUATIONS
Markets vs Quality
The instability of crude oil prices might easily be thought to cause a lowering of quality—on a declining market.
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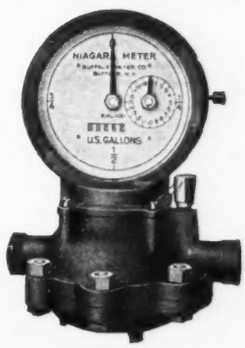

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TULSA · OKLAHOMA

Portable Cooling Tower Designed To Minimize Water Losses

By J. C. Chatfield
N. P. N. Staff Writer

TULSA, Nov. 27

A PORTABLE, all metal water cooling tower for natural gasoline plants designed to prevent wind losses of water has been invented by Alexander B. Morris of the Chestnut & Smith Corp. A working model of the tower is being shown by Mr. Morris to gasoline manufacturers in the Mid-Continent preparatory to production of the equipment on a commercial scale.

Automatic closing of louvers on the leeward side of the tower with a compensating opening on the windward side is the principal feature of the invention. The inventor believes that the self-closing louvers will be of particular advantage to those manufacturers who must buy water or in localities where water is scarce as it is in many part of the Mid-Continent.

Louvers on opposite sides of the tower are balanced against each other through a control device on the top. This control device consists of a wind vane attached to a drum over which an actuating cable is passed.

Wind blowing against the louvers on the windward side of the tower is calculated to lessen the load on the supporting cable. At the same time the wind action will increase the load on the leeward louvers causing them to close.

The wind vanes on top of the tower will be small in size, only large enough to overcome friction of moving parts. Action of wind on the louvers themselves makes it unnecessary to provide vanes large enough to do the entire necessary work of opening and closing.

In addition to the force exerted by the wind directly upon the louvers, the unequal weight of falling water will aid in the action. Wind blowing against the tower will tend to blow water away from the windward louvers and thus intensify the load lightening effect. At the same time the water will be blown against the leeward louvers and its weight will help them to close.

Some water cooling towers now on the market are provided with movable louvers so that it is possible for plant operators to adjust them to save water. The labor involved in moving the louvers, however, is considerable and gasoline manufacturers have found that their plant operators do not ordinarily take the trouble to do it. In a shifting, gusty wind it would be impossible for plant operators to make changes quickly enough to save all the cooling water.

Because of the large water losses from cooling towers manufacturers have found it necessary to place their towers at a considerable distance from other parts of the plant. Where this has not been done the action of the spray on equipment has been to keep it continually in need of paint. In extreme hot weather the distance of cooling towers from the remainder of the plant militates against the most efficient operation because of the heat absorption of the cooled water before it reaches closed condensers and similar equipment. It is expected that water losses will be so low from the Morris cooling tower that it can be built very close to the remainder of the plant.

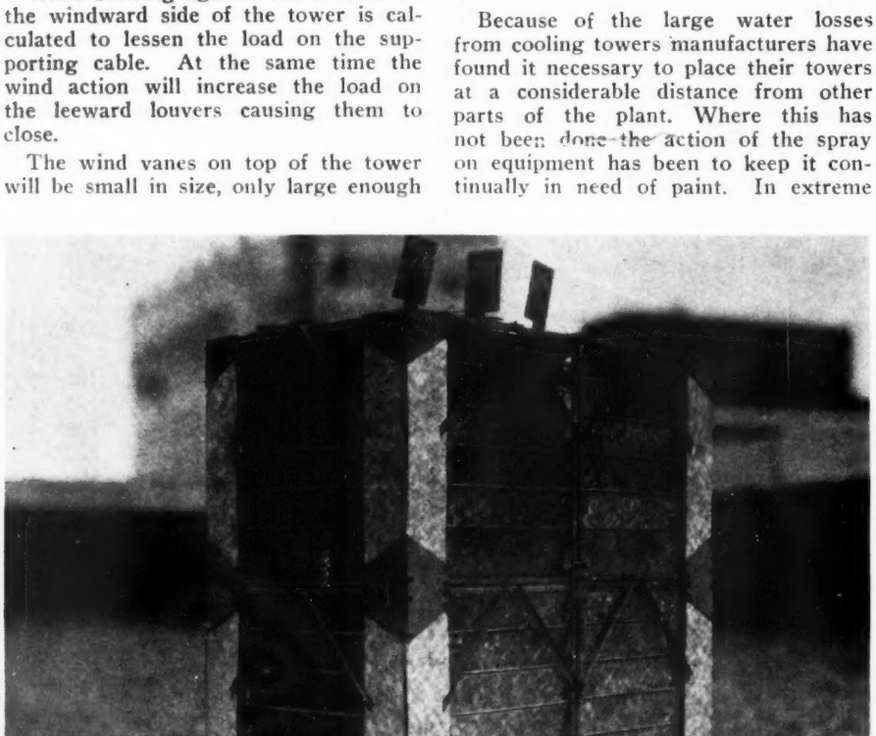
To prevent corrosion the louvers and other structural parts of the tower will be made with galvanized metal. All bearings will be made of non-corroding steel working in bronze bushings. Louvers will be hinged at the top and open inward as shown below, which is a photograph of the working model.

The tower will be made in sections 8 by 10 feet, each section carrying six 2 by 8 foot louvers. Sections are to be cross braced to make them rigid. Towers of any size can be built by varying the number of sections.

Quick assembly by common labor in the field is to be a talking point for the new tower. Only two or three bolts will need to be used at each corner of each section. All parts can be salvaged for moving except concrete footings.

In extreme cold weather it will be possible to close all louvers tight and prevent all circulation of air to prevent the formation of ice.

Applications for patents on the idea have been filed by Mr. Morris following a search of records of the patent office which disclosed no prior patents on the idea.



Working model of the Morris Cooling Tower with self closing louvers to prevent water losses at natural gasoline plants. N.P.N. Staff Photo.

Baltimore Oil Society Plans Expansion

BALTIMORE, Nov. 29.—Oil industry representatives from Baltimore and Philadelphia were guests at a dinner given by the Baltimore Oil Trade Association at the Southern hotel, Baltimore, on Nov. 4, when plans for the expansion of the association's activities to Washington, D. C., and through Maryland were outlined, H. F. Brown, secretary, reports.

Among the guests at the dinner were: John W. Sherwood, Sherwood Bros., Baltimore; Thomas J. Barnes, Sun Oil Co. and president of the association; J. A. Fricker, Standard Oil Co. of New Jersey, vice-president of the association; Charles C. Fickenscher, Union Oil Co., treasurer of the association; Robert T. Purkins, Wm. C. Robinson Sons' Co.; Joseph M. Patterson, Philadelphia; W. Champlain Robinson, United Oil Co.; H. C. Smith, Red "C" Oil Co.; George J. Thornton, Security Oil Co.; S. E. Schwartz, Coastwise Petroleum Co.; Frank W. Dryden; Walter E. Black, and Herbert Sadtler, Standard Oil Co. of New Jersey, and A. B. Gardner, United Oil Co. About 30 others attended.

CANNON FALLS, MINN.—Peerless Oil Co. has installed additional bulk storage to care for increasing business, according to C. A. Rehder, secretary.

Restoration of Pressure Tried in Texas Producing Fields

HOUSTON, Nov. 26

TWO methods of restoring gas pressure to oil sands are to be tried out in Texas fields by different operating companies under conditions peculiar to the individual producing areas.

Humble Oil & Refining Co. will undertake to keep per well per day yields at approximately the present average of 180 barrels in the Blake pool of northern Brown county by reintroducing dry gas in the sand horizon after stripping it for raw natural gasoline at a plant installed in the field.

Texas Pacific Coal & Oil Co., which operates a number of largely depleted properties in the Strawn district of Palo Pinto county, plans to restore pressure on the sand and increase production by the use of gas or compressed air.

The rejuvenation of partly depleted fields has been carried forward in various parts of the country at different times, but attempts to maintain well averages in freshly developed areas have been made but seldom. For that reason, the Humble's experiments in the Blake pool will be watched carefully by oil operators.

"Key" Wells to be Drilled

THE Humble's plan calls for the drilling of key wells for the induction of dry gas back into the sand at low spots on the sub-surface contours of the field. Induction points will be in between producing wells, their drilling generally following a "five-spotting" policy.

It is figured, of course, that the sand has been partly drained at present points of outlet represented by producing wells; no such drainage exists at proposed gas induction points. It is believed that by putting back 65 to 70 per cent of the gas produced with the oil under present conditions it will be possible to maintain high per well average yields without "channeling" the pay sand.

As the residue gas obtained by the Humble from its Blake pool natural gasoline plant amounts to about 60 per cent of the incoming quantity of gas, the total available will balance nicely with induction requirements as set up in advance of actual operation of the plan.

It has been figured theoretically on a gas factor of 700 cubic feet of gas produced with each barrel of oil in the Blake pool that the recovery of one barrel brings with it the gas required to ultimately produce nine other barrels. This is figured on the basis of 250 pounds rock pressure in the 1100-foot sand, which yields 40-42 A. P. I. gravity oil. About 70 cubic feet of gas can be dissolved into a barrel of crude oil of somewhat heavier gravity, experiments have shown, at 225 pounds rock pressure.

Although it is not believed that present per well yield averages can be entirely maintained, the thought exists that the present 9 to 1 gas oil ratio can be handled advantageously and that eventually enough gas can be put back into the sand to hold up the pressure on the producing horizon.

Work In Depleted Area

AVERAGE per well production in the depleted territory to be worked over by the Texas Pacific Coal and Oil Co. ranges from two-tenths to one and three-tenths barrels per day. Wells affected by the Texas Pacific's plan total 102, of which number 34 are no longer being pumped. Those under exploitation at present yield between 40 and 50 barrels combined daily production.

In the case of the Texas Pacific it has been necessary for an engineer to carefully study well records, production declines and mechanical problems in conjunction with water conditions and sand correlations.

Underground conditions having been established to the extent possible to determine, the Texas Pacific will now attempt increased recovery through the use of compressed gas or air so handled as to produce the oil at suitable ejection periods. The ejecting agent will be supplied to the bottom of the hole through a pipe connected to an electrically controlled mechanism; and the discharge pipe will be sealed at the bottom by a ball or check valve, which will be closed automatically at the end of each ejection period.

Wells Studied Individually

WELLS will be studied individually and by groups in order to know their peculiarities and to obtain maximum production efficiencies. It is proposed in the beginning to use an ejection period of three minutes per hour, shortening or lengthening the time element in conformity with the peculiarities of well performance.

In theory the space occupied by oil, gas and water at the bottom of the hole would become a void after each period of ejection. The void would then be refilled by natural inflow from the sands and because of activating conditions set up in the ejection period.

Oil in the cavity at the bottom of the hole will be kept partly saturated with gas at all times as a check against the forming of paraffin in the producing horizon from which the well draws. This result, plus the cleaning of the well cavity at ejection periods, will tend to permit increased production over and above the efficiencies believed to be forthcoming from the artificial "flowing of wells by heads" in the broader operation of the plan.

Lessees Seek to Delay Drilling in Osage

TULSA, Nov. 29.—The Osage Oil and Gas Lessees Association, through Harry H. Smith, secretary, has made formal request for extension of drilling obligations on Osage reservation leases, as a result of a meeting of the association held Nov. 16.

Such request was made to J. George Wright, superintendent of the Osage Indian Agency, notwithstanding that the Osage Tribal Council has already voted adversely upon the question of general extension. Superintendent Wright was asked to submit the request of the lessees' association to the Department of the Interior.

The desire of Osage lessees to be relieved of immediate drilling obligations at this time is based upon the prevailing belief that everything possible should be done to restrict production this winter. It was brought out at the meeting that the Mid-Continent industry is threatened with pipe line congestion to the point where not all of the oil can be cared for; that operators in some other fields are working together to delay development of production.

Under the departmental ruling of May, 1924, no general extensions were to be granted, but the lessees' association is of the opinion that the meaning of that ruling, and of notices given at each sale of Osage leases since that time, was that general extension of drilling time might be granted if new or extraordinary situations with respect to supply and demand should arise. Such extraordinary condition is deemed to have arisen.

The request is that lessees be notified that extensions will be granted for six months, or one year, upon payment of the usual rental.

Crystal Buys Jenkins Units

TULSA, Nov. 27.—The Crystal Oil Refining Corp. has contracted with the Graver Corp. for two units of the Jenkins cracking process, F. W. Burford, vice president, has announced. Construction will begin soon so the units may be completed by April 1. Since reorganization of the old Caddo Central Oil & Refining Corp. as the Crystal the new company, under the management of Mr. Burford, has been active in installing modern equipment at the two Shreveport refineries.

Power Plant Completed

AMARILLO, Nov. 29.—The huge power plant of the Panhandle Power & Light Co. located four miles northwest of Borger, was completed this week. The plant has a capacity of 10,000 kilowatts and has power line connections throughout the Hutchinson county oil fields. Later additional units may be added if necessary. The plant was put up in record time to serve the needs of the field. Construction work was started on August 22.

Visiting Around the Refineries

By Paul Truesdell

National Petroleum News

Keeping the Anti-Knock Value in Gasoline

TALKING the other day with T. T. (Tom) Gray in his office in Elizabeth, N. J., he told me that there are now 53 Gray fuller's earth units for treating cracked gasoline in the vapor phase either in operation or building. All but 10 of them are in this country. This represents, Mr. Gray says, capacity to treat about five and a half million barrels of gasoline a year and the treating capacity of the earth averages about 1000 barrels to the ton.

The Standard Oil Co. of New York is the latest company to take on the Gray vapor phase treating process and is now building six units. Other companies using the process are Sun Oil Co., Philadelphia; Vacuum Oil Co., Paulsboro, N. J.; McColl Bros., Toronto; White Star Refining Co., Wood River, Ill.; Kanotex Refining Co., Arkansas City, Kan.; Marland Refining Co., Ponca City, Okla.; Lubrite Refining Co., St. Louis; Garber Refining Co., Garber, Okla.; Texas Pacific Coal & Oil Co., Fort Worth; Alamo Refining Co.; Argentine Republic government refinery and Barnsdall Refining Co., Barnsdall Okla.

It is only a little over two years ago that the first commercial installation of the process was made at the Barnsdall plan. This was described in National Petroleum News at that time. A good many improvements have been made in the process since then and more are to be expected, according to Mr. Gray.

The action of the clay on the hot gasoline vapors is selective, having the good sense to take out the gummy substances while leaving in the anti-knock characteristics. Work is being done now in the Gray laboratories to find a way to make a useful product out of the material polymerized out of the gasoline. At some plants this is recracked to yield more gasoline.

By the way, Mr. Gray has standing in the back yard of his laboratory building in Elizabeth, two little vacuum stills which he says were among the earliest if not the earliest ever built in America.

Plans Big Increase in Refining Capacity

THE Standard of New Jersey, according to newspaper reports, has appropriated $150,000,000 for the expansion of the refining capacity of its subsidiaries. About two-thirds of the appropriation, it is understood, will be spent within the next 12 months. According to the report, a plant is to be built by the Anglo-American Oil Co., in England at a cost of $25,000,000. This will put the Standard in better position to compete with the Anglo-Persian Oil Co. which has a refinery in Wales.

Other reported features of the refinery expansion program are: a $25,000,000 plant at the mouth of the Magdalena River in Colombia; enlargement of the refinery at Talara, Peru; enlargement of the Montreal and other Canadian plants of the Imperial Oil Ltd.; enlargement of the Baytown refinery of the Humble Oil & Refining Co.; construction by the Humble of a 10,000-barrel plant in the Panhandle field, which has been referred to previously in this paper.

A British Research Fund

THE Institution of Petroleum Technologists of England announces that the sum of $2,000 is allocated each year for the advancement of research in petroleum technology and the council of the institution is prepared to receive applications for assistance from the fund. Applications must be made by Dec. 1. Terms and conditions may be obtained from the secretary of the institution, Aldine House, Bedford st., Strand, London W. C. 2. Probably the fund is available only to Britishers although there is no such statement in the announcement.

Bringing An Old Refinery Up To Date

WORK of making the refinery of the American Oil Works Co. at Titusville, Pa., into a strictly modern, efficient plant, is now far advanced, according to A. B. Weingard, treasurer and general manager of the company. Plans for improvement were begun when the American Oil Works Co. was reorganized last March. The aim of the company is to make the refinery one of the best operating on Pennsylvania crude.

Well over $150,000 has already been spent and it is estimated that the total cost of the remodeling will run around $200,000.

Improvements include a new boiler house with a 110-foot steel stack, five Sharples centrifugal machines for dewaxing cylinder stock, new filtering equipment with a modern plant for reburning the spent clay and several buildings, all of fire-proof construction.

When the new company took over the business last spring, according to Mr. Weingard, there were from nine to 12 men on the payroll. Now there are 60 and it is expected that a few more will be put on when the refinery work is completed.

Officers of the company are also identified with the Pennsylvania Refining Co., Karns City, Pa. They are: John A. Beck, Karns City, president; Wayne K. Glenn, Butler, Pa., vice president; Dr. H. A. Downs, Oil City, vice president; A. B. Weingard. Henry J. Myers of Chicora, Pa., and W. W. Beck of Karns City are directors in addition to the officers. Henry Kitner, for many years with the Conewango Refining Co. at Warren, Pa., is refinery superintendent.

Oil Holds Equilibrium Indefinitely

R. E. WILSON of the Standard of Indiana writes in concerning the comment on non-diluting motor oil which was published on this page in the Nov. 10 issue as follows:

"Your note about our non-diluting type of oil was entirely correct except for the implication that after holding constant for several hundred miles (beyond the first 150 or 200) the viscosity dropped off again. As a matter of fact, it holds the equilibrium dilution indefinitely unless there is a marked change in weather or operating conditions which, of course, changes the equilibrium. The only thing which necessitates changing the oil in most cases is the gradual accumulation of carbon and road dust."

The "equilibrium" oil is now being offered to the motorist under the trade name, Iso Vis, meaning constant viscosity. A bulletin has been put out by the lubrication engineering department of the National Petroleum Marketers Association implying doubt as to the correctness of the principle on which the development of Iso Vis is based.

Cranford, N. J., assignor to Air Reduction Co., Inc. Filed Jan. 31, 1923. No. 1,607,321.

Liquefaction of Gases.—Claude C. Van Nuys, Cranford, and Joseph L. Schlitt, Elizabeth, N. J., assignors to Air Reduction Co., Inc. Filed Jan. 10, 1925. No. 1,607,322.

Separation of the Constituents of Ternary Gaseous Mixtures.—Claude C. Van Nuys, Cranford, N. J., assignor to Air Reduction Co., Inc., New York, N. Y. Filed July 11, 1925. No. 1,607,323.

Miscellaneous

Valve-Operating Mechanism — Abram W. Wheaton, Jr., Maplewood, N. J., assignor to A. W. Wheaton Brass Works, Newark, N. J. Filed May 22, 1925. No. 1,606,278.

Motor Fuel—Arthur B. Hamby, Highland Park, and Joseph D. Woodward, Metuchen, N. J. Filed Jan. 4, 1922. No. 1,606,431.

Process of Separation of Gases Liquefying at Different Temperatures.—Georges Claude, Paris, France, assignor to Lazote Inc., a Corp. of Delaware. Filed Jan. 30, 1920. No. 1,605,646.

Chemical Process.—Grover C. Miller, South Pasadena, Calif. Filed June 28, 1926. No. 1,605,130.

Coking Process.—Frederick W. Speer, Jr., Pittsburgh, Pa., assignor to The Koppers Co., Filed Sept. 12, 1918. No. 1,605,378.

Process of Separating Hydrogen Cyanide, Ammonia, and Carbon Dioxide from Gas Mixtures Containing Them.—Otto Liebknecht, Frankfort-on-the-Main, Germany, assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Filed Nov. 8, 1924. No. 1,606,767.

Tank-Car Valve.—David B. Young, Lawrenceville, Ill. Filed Nov. 21, 1924. No. 1,606,912.

Process of Distilling Oil Shales and the like.—David J. L. Davis and George W. Wallace, New York, N. Y., assignors to S. E. Company, San Francisco, Calif. Filed Sept. 20, 1922. No. 1,607,240.

Apparatus for Distilling Oil Shales and the like.—David J. L. Davis and George W. Wallace, New York, N. Y., assignors to S. E. Company, San Francisco, Calif. Filed Sept. 20, 1922. No. 1,607,241.

Production of Hydrated Olefines.—Otto Johannsen and Otto Gross, Volklingen-on-the-Saar, Germany. Filed Dec. 2, 1925. No. 1,607,459.

Baltimore Man's Guess Wins Hartol Oil

NEWARK, N. J., Nov. 29.—Results of the guessing contest held by the Hartol Products Corp. at the recent Atlantic City convention of the National Petroleum Marketers' Association, have just been announced.

The company exhibited a glass vessel of crude oil and offered a prize of four drums of its pure Pennsylvania motor oil to the individual guessing the nearest correct number of drops in the vessel. The winner was F. R. Ulrich, Crescent Oil Co., Baltimore, Md.

The vesel contained 58,257 drops and the guesses ranged from 2,000 to 300,000 drops, H. B. Van Cleve, of the Hartol company, said.

Oil Marketer to Hunt

WABASH, IND.—Harry F. Palmer, who has been manager and half-owner of the Quality Oil Co., of Edwardsville, Ill., has sold his interest to his partner, Robert C. Cunningham, coal mine operator. The firm has two bulk stations, one at Edwardsville and one at Mitchell, Ill. Mr. Palmer will hunt a while in Arkansas, after which he expects to re-enter the oil business in northern Indiana.

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Time of Delivery? Rigid observance of all delivery dates is standing rule with Penn-Empire.

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Gasoline
Kerosene
Greases
Paraffin
Waxes
Fuel Oils
Stocks
Neutrals

EMPIRE OIL WORKS INC.
Oil City, Pa.
WHEN YOU BUY PENN-EMPIRE YOU GET THE BEST

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HOLMESBURG, PHILADELPHIA, PA.

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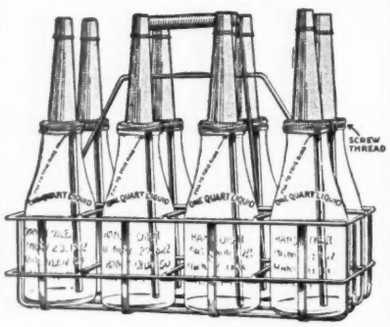

Increase Your Profit

OIL companies have spent thousands of dollars obtaining desirable locations for their stations, and have spent enormous sums of money displaying their gasoline signs, but have overlooked the most profit-making product they handle, lubricating oil.

Display your lubricating oil in Handy Oilers placed on Handy Oiler's display stand and increase the most profitable part of your business, the sale of lubricating oil.

Write us for prices on this equipment.

Manufactured by

THE HANDY OILER CO.

Danville, Indiana

A Big Bite— but No Bark

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Self-cleaning check valve Air cleaner and muffler, 30 gallon tank, 20 feet of hose. Automatic control Completely equipped.

Kellogg Manufacturing Company

ROCHESTER - - NEW YORK

Tank Manufacturer Gives Method For Finding Tank Capacities

CLEVELAND Nov. 29.—Because many letters are written to N. P. N. asking for methods and formulae for strapping tanks, especially horizontal tanks, we asked several tank manufacturing companies to give the oil jobber a formula, preferably one that would not require a professor of mathematics to use, for strapping and gauging horizontal tanks.

Little difficulty arises over the question of strapping standard sizes of tanks that are bought now from the manufacturer because the manufacturer always gives the buyer a gage table applying to that particular size and shape of tank. However, there are a great many odd-sized tanks in use and jobbers are from time to time buying discarded stills and such containers for oil storage. It is these off-sized containers that make the most trouble in strapping to establish gaging tables.

The Columbian Steel Tank Co. of Kansas City has sent in to us the accompanying table and the formula for finding the capacity of any horizontal tank and for gaging in gallons the contents of the tank at any depth of liquid in inches. The table is the standard gaging table for a 6 by 20 horizontal tank.

We are glad to publish this information and believe that the formula for finding the capacity in gallons of any horizontal tank will be particularly valuable to jobbers.

TABLE FOR DETERMINING THE QUANTITY OF A KNOWN HEIGHT OF LIQUID IN A HORIZONTAL TANK

THE COLUMBIAN STEEL TANK CO.

Kansas City, Missouri

Square the diameter in inches and multiply by the length of the tank in inches: multiply by .0034: the result is the capacity of the tank in U. S. gallons.

Divide the number of inches which the gage shows to be in the tank by the diameter in inches to find the per cent of the diameter which the gage equals. Multiply the capacity of the tank by the decimal shown opposite such percent in the following table: the result will be the quantity of liquid in the tank in U. S. Std. gallons.

If the percent of the diameter found be other than even the corresponding decimal (percent of capacity) may be found by Interpolation. Example—Percent of diam. found equals 39.21; take the decimal for 39% and add to it 21 one-hundredths of the difference between the decimals for 39% and 40%.

Example—43 inches gage in a tank 9 feet diam. by 30 feet long:

108	Diam. Ins.	Diam. Ins.	.3921
108			108)43.0000
11664	Sq. of Diam.	.373539	40% Decimal
360	Length Ins.	.361035	39% Decimal
4199040		.012504	Difference
.0034		.81	Over 39%
14276.736	Capacity	.010128	To Add

Percent Diam Ins Gage

Decimal for 39% Diam.	.361035
Decimal for .81%	.010128
Decimal for 39.81%	.371153
Total Capacity Tank	14276
Quantity of Liquid in the tank	5298.72299

Per Cent	Decimal	Per Cent	Decimal	Per Cent	Decimal	Per Cent	Decimal	Per Cent	Decimal
1	.001759	21	.152638	41	.385998	61	.638965	81	.867707
2	.004799	22	.163077	42	.398525	62	.651333	82	.877579
3	.008782	23	.173732	43	.411154	63	.663660	83	.887281
4	.013480	24	.184462	44	.423749	64	.675939	84	.896766
5	.018665	25	.105501	45	.436401	65	.688074	85	.905935
6	.024509	26	.206502	46	.449132	66	.700238	86	.914886
7	.030795	27	.217792	47	.461863	67	.712289	87	.923511
8	.037501	28	.229195	48	.474560	68	.724271	88	.932021
9	.044627	29	.240633	49	.487268	69	.736004	89	.940168
10	.052025	30	.252298	50	.500000	70	.747702	90	.947975
11	.059832	31	.263996	51	.512732	71	.759367	91	.955373
12	.067979	32	.275729	52	.525440	72	.770805	92	.962499
13	.076489	33	.287711	53	.538127	73	.782208	93	.969205
14	.085114	34	.299762	54	.550868	74	.793498	94	.975491
15	.094065	35	.311926	55	.563599	75	.804499	95	.981335
16	.103234	36	.324061	56	.576251	76	.815334	96	.986520
17	.112719	37	.336340	57	.588846	77	.826268	97	.991218
18	.122421	38	.349667	58	.501475	78	.836923	98	.995201
19	.132293	39	.361035	59	.614002	79	.847352	99	.998241
20	.142346	40	.373539	60	.626461	80	.857654	100	1.000000

Depth Inches	
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Note:—The dimensions o

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CHICAG tive storm c dustry is co changed as a Information Chicago at th American O cates that a raise gasoline states at the n so many before the e

A revision tax law is ex is not expect movement no law more w the oil men in agreement

In Michig girding for creased gasol when Fred V instead of W oil men drev Green was Ionia Cooper an oil man, bill that is the industry

In South D son was depo not persecute H. McMaster

HORIZONTAL TANK
GAGE TABLE
6′ - 0″ x 20′ - 0″

Columbian Steel Tank Co.
Kansas City, Mo.

Depth Inches	U. S. Std. Gallons	Depth Inches	U.S. Std. Gallons	Depth Inches	U. S. Std. Gallons	Depth Inches	U. S. Std. Gallons
1	10.4	19	892.6	37	2190.4	55	3467.4
2	33.2	20	959.2	38	2265.2	56	3530.4
3	60.4	21	1026.8	39	2340.0	57	3592.4
4	92.6	22	1095.2	40	2414.4	58	3652.4
5	128.6	23	1164.4	41	2488.2	59	3710.4
6	168.2	24	1234.6	42	2562.0	60	3766.8
7	211.2	25	1305.4	43	2635.4	61	3821.6
8	257.0	26	1376.6	44	2708.6	62	3874.4
9	305.2	27	1449.2	45	2781.2	63	3925.2
10	356.0	28	1521.8	46	2853.8	64	3973.4
11	408.8	29	1594.8	47	2925.0	65	4019.2
12	463.6	30	1668.4	48	2995.8	66	4062.2
13	520.0	31	1742.2	49	3066.0	67	4101.8
14	578.0	32	1816.0	50	3135.2	68	4137.8
15	638.0	33	1890.4	51	3203.6	69	4170.0
16	700.0	34	1965.2	52	3271.2	70	4197.2
17	763.0	35	2040.0	53	3337.8	71	4220.0
18	827.0	36	2115.2	54	3403.4	72	4230.4

Note:—The capacities in the above table must be considered as only approximate, as dimensions of tanks vary slightly.

Political Clouds Fade In Western States

CHICAGO, Nov. 27.—The legislative storm center, so far as the oil industry is concerned, appears to have changed as a result of the last election. Information gleaned from jobbers in Chicago at the recent convention of the American Oil Men's Association indicates that an effort will be made to raise gasoline tax rates in some western states at the next legislature, but not in so many states as was expected before the election.

A revision of the present gasoline tax law is expected in Missouri, but it is not expected to raise the rate. The movement now on foot is to make the law more workable, and in this effort the oil men and the state officials are in agreement.

In Michigan, the oil jobbers were girding for a hard fight against increased gasoline taxes last summer. But when Fred W. Green became governor instead of William A. Comstock, the oil men drew a breath of hope. Mr. Green was recently president of the Ionia Cooperative Oil Co., and being an oil man, is not likely to sign any bill that is unreasonable or unjust to the industry as he knows it.

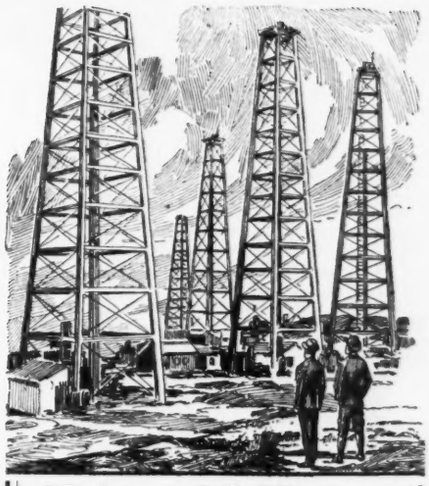
In South Dakota, Gov. Carl Gunderson was deposed. Mr. Gunderson has not persecuted the oil men as did W. H. McMaster, the governor who went before him, but his sympathy with the Independents in his state has been uncertain. W. J. Bulow, the governor-elect, was the only successful Democratic candidate in a state that is about 10-to-one Republican. He was elected after proclaiming that he only wanted the office two years, long enough to get the state completely out of competitive business.

In Nebraska, Governor Adam McMullin was re-elected, much to the delight of the oil men in the state, regardless of politics. His opponent was the former Gov. Charles Bryan who once made the race for vice-president of the United States on a trust-busting platform. During his race to be governor of Nebraska again, some of his campaign literature contained the following:

"As governor, Mr. Bryan established state competition in the sale of gasoline and caused a reduction of 7 cents in price, saving each automobile owner about $52 per year. Ask the gasoline combine about this. If elected he can and will reduce the price again."

The claim of being responsible for a 7-cent cut in the price of gasoline was as groundless as it was funny, but it showed just what Mr. Bryan meant to do if he was made governor again.

MAMARONECK, N. Y.—Mitchel Oil Corp. has installed 28,000 gallons tankage for benzol, according to A. P. Gest, Jr.



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Roster of Oil Associations

National Petroleum News

American Association of Petroleum Geologists. Business Manager, J. P. D. Hull, Box 1852, Tulsa, Okla.

American Chemical Society. Petroleum Division, Mellon Institute, Pittsburgh, Pa. Secretary, George A. Burrell, 1501 Columbia Bank Bldg., Pittsburgh, Pa.

American Gas Association, 342 Madison Ave., New York City. Secretary, Alexander Forward.

American Institute of Mining and Metallurgical Engineers, Petroleum Division. 29 West 39th St., New York. Chairman, Petroleum Section, F. Julius Fohs.

American Oil Burner Association, 350 Madison Ave., New York City. Executive Secretary, Leod D. Becker.

American Oil Chemists Society, 705 Tchoupitoulas St., New Orleans, La. Secretary-Treasurer, J. C. Helm.

American Oil Men's Association, 624 South Michigan Ave., Chicago, Ill. James A. Gilmore, Secretary and Manager.

American Petroleum Institute, 250 Park Ave., New York City Secretary, R. L. Welch.

American Society for Testing Materials, 1315 Spruce St., Philadelphia, Pa. Secretary-Treasurer, C. L. Warwick.

Arkansas Petroleum Club, Secretary, James P. Lavery, Petroleum Supply Co., ElDorado, Ark.

Arkansas-Tennessee Oil Marketers Association. Secretary, R. E. McKellar, care Diamond Oil Co., Memphis, Tenn.

Association of Oil Jobbers of Mississippi, Jackson, Miss. President, R. C. Clark, Independent Oil Co., Tupelo, Miss.

Association of Natural Gas Supply Men, Inc., 905 Oliver Bldg., Pittsburgh, Pa. Secretary, Guy F. Batchelor.

Association of Natural Gasoline Manufacturers, 504 A-B Cosden Bldg., Tulsa, Okla. Secretary, A. V. Bourque.

Association of Producers of Petroleum in Mexico, 17 Battery Place, New York, Director, Guy Stevens.

Association of Producers of Petroleum in Venezuela, 17 Battery Place, New York City. Director, Guy Stevens.

Chamber of Mines & Oils of California, 206 So. Spring St., Los Angeles, Calif.

Cincinnati Oil Club. Secretary, George H. Siemer, c/o Merchants Oil Co., Cincinnati, O.

Detroit Petroleum Club. Secretary, Frank McSweeney, Cities Service Oil Co., General Motors Bldg., Detroit, Mich.

Eastern Kentucky Oil Producers Association, Ashland, Ky. Secretary, David Browning.

El Paso Petroleum Club. President, A. L. Behringer, Home Oil Co., El Paso Tex.

Georgia-Alabama Independent Petroleum Marketers Association. Secretary-treasurer, W. L. Moore, Wofford Oil Co. of Georgia, Atlanta, Ga.

Greater Chicago Oil Men's Club. Secretary, Mel Keim, Apex Motor Fuel Co., 4555 W. 26th St., Chicago, Ill.

Gulf Coast Independent Oil Producers Association, 403 Goggan Bldg., Houston, Tex. Secretary, T. L. Smith, Jr.

Illinois Petroleum Marketers Association. Secretary, G. A. Primm, Chamber of Commerce Bldg., Springfield, Ill.

Independent Oil Men of America, 624 So. Michigan Ave., Chicago, Ill. (Advertising branch of National Petroleum Marketers Association.)

Independent Oil Men's Association of Massachusetts. Secretary, F. E. Bergfors, care Quincy OH Co., Quincy Adams, Mass.

Independent Oil Men's Association of New England. Secretary, I. H. Farrar, Berkshire Oil Co., Worcester, Mass.

Independent Oil Marketers Association of Atlanta, Ga. Secretary, J. H. Smitha, care Community Oil Co., Atlanta, Ga.

Independent Petroleum Marketers Association of California, Inc., 1006 California Bldg., 2nd and Broadway, Los Angeles, Calif. Secretary and Manager, H. H. Maxson.

Independent Petroleum Marketers of Middle Atlantic States. President, R. C. Paul, Harrisburg Oil & Supply Co., Harrisburg, Pa.

Indiana Independent Petroleum Marketers Association. Field Secretary, Sam T. Hurd, Connersville, Ind.

Iowa Independent Oil Men's Association, 225 Fifth St., Des Moines, Ia. Secretary, M. L. Long.

Kansas Oil Men's Association, 423 First National Bank Bldg., Wichita, Kan. Secretary, J. A. Motter.

Kentucky Oil Men's Association, Inc., 610 Trust Co. Bldg., Lexington, Ky. Secretary, Thomas S. Scott.

Michigan Independent Oil Men's Association, 1005 Grand Rapids National Bank Bldg., Grand Rapids. Mich. Secretary, and Treasurer, Wayne C. Hughes.

Mid-Continent Oil & Gas Association, 505 Cosden Bldg., Tulsa, Okla. Secretary, Harry H. Smith.
Kansas-Oklahoma Division, 505 Cosden Bldg., Tulsa, Okla. Secretary, Harry H. Smith.
Louisiana-Arkansas Division, 724 Giddens-Lane Bldg., Shreveport, La. Secretary, Joseph B. Elam.
Texas Division, P. O. Drawer 1567, Dallas, Texas. Secretary, J. P. Laney.

Minnesota Petroleum Association, 638 Builders Exchange, Minneapolis, Minn. Secretary, Paul E. Hadlick.

Mississippi Oil Men's Association. Secretary, J. J. McEwen, 501 Capital National Bank Bldg., Jackson, Miss.

Missouri Oil Men's Association, 217 Dwight Bldg., Kansas City, Mo. Secretary, George S. Allee.

National Association of Independent Oil Producers, 414 Atlas Bldg., Tulsa, Okla. President, William H. Gray.

National Gasoline Dealers Association, Inc., 280 Madison Ave., New York City. Secretary, Thomas P. McKee, Jr.

National Petroleum Association, Munsey Bldg., Washington, D. C. Washington Counsel, Fayette B. Dow.

National Petroleum Marketers Association, Blum Bldg., 624 South Michigan Ave., Chicago., Ill. President, L. V. Nicholas.

Natural Gas Association of America, 905 Oliver Bldg., Pittsburgh, Pa. Secretary, Guy F. Batchelor.

Natural Gas & Petroleum Association of Canada, Chatham, Ont., Canada. Secretary, S. A. Morse.

Nebraska Independent Oil Men's Association, 416 Terminal Bldg., Lincoln, Neb. Secretary, C. M. Sutherland.

New Jersey Oil Trade Association. President, L. L. Niedrach, Beaver Oil Co., Newark—Pompton Turnpike, Mountain View, N. J.

New York State Oil Producers Association, Wellsville, N. Y. President, Lewis H. Thornton.

New York State Petroleum Marketers Association, 1201 So. Salina St., Syracuse, N. Y. Secretary, Benjamin A. Javitz.

North Central Ohio Petroleum Club, 489 Cherry St., Marion, O.

North Dakota Petroleum Association, acting head, H. M. Wilson, care International Oil Co., Minot, N. D.

Northwest Independent Oil Association, Secretary, C. H. Brown, care Arro Oil & Refining Co., Lewistown, Mont.

Northwestern Pennsylvania Oil Producers Association, 78 Main St., Bradford, Pa. President, A. Edward Booth.

Ohio Gas & Oil Men's Association, 811 First National Bank Bldg., Columbus, O. Secretary, William H. Thompson.

Ohio Petroleum Marketers Association, 616 Commerce Bldg., Columbus, O. Executive Secretary, Mr. Milne.

Oil Men's Association. Secretary, F. W. Mitchell, Clinton Oil Co., Cleveland,

Oil Trade Association of Philadelphia, Inc. Secretary, Howard M Rogers, 1 Arch St., Philadelphia, Pa.

Oil Trades Association of New York, Inc 35 So. William St., New York City Secretary, Joseph C. Smith.

Oklahoma Oil Jobbers Association, 4 Fidelity National Bank Bldg., Oklahoma City, Okla. Secretary, C. M Kinney.

Oklahoma Oil Marketers, Inc., P. O Box 755, Enid, Okla. Secretary, W. W Blackburne.

Okmulgee District Oil & Gas Association Okmulgee, Okla. Secretary, Charles O'Neill.

Osage Oil & Gas Lessees Association, 50 Cosden Bldg., Tulsa, Okla. Secretary Harry H. Smith.

Pennsylvania Grade Crude Oil Association, 209 Chambers Bldg., Oil City, Pa Secretary, R. J. Alexander.

Petroleum Club of Central New York Secretary, George R. Casey, Crown Oil Co., Syracuse, N. Y.

Pierce County Independent Gasoline Oil Dealers Association, Executive Secretary, J. H. Stine, 1009½ Pacific Ave., Tacoma, Wash.

Purchasing Agents Association of Tulsa 307 So. Cincinnati St., Tulsa, Okla. Secretary-Treasurer, O. V. Borden.

Rocky Mountain Independent Oil Men's Association, (formerly Colorado Petroleum Club), 411 Exchange Bldg., Denver, Colo. Secretary, A. Oberholtz, Jr.

Rocky Mountain Oil & Gas Association P. O. Box 1559, Casper, Wyo. Secretary C. W. Sparr.

Rocky Mountain Oil & Gas Association Montana Chapter, 222 Ford Bldg. Great Falls, Mont. Secretary, Walter F. Brittan.

South Dakota Independent Oil Jobbers Association, Sioux Falls, S. D. Secretary, F. H. Buehler, care Dacotah Oil Co., Madison, S. D.

Southern Petroleum Jobbers Association Secretary, D. C. Patterson, Camden S. C.

St. Louis Petroleum Club, 1430 So. Vandeventer Ave., St. Louis, Mo. Secretary, R. F. Leinberger, Blackmer Pump Co., St. Louis, Mo.

Springfield Petroleum Club. Secretary Ross Lock, c/o Lock Bros., Oil Co. Springfield, Ill.

State Executives Club. Secretary, Paul E. Hadlick, Minnesota Petroleum Association, 638 Builders Exchange, Minneapolis, Minn.

Technical Club of Oklahoma, 208 Fisher Bldg., Tulsa, Okla. Secretary, R. L Ginter.

Tennessee Independent Oil Men's Association, Secretary, G. H. Alsup, Jr., care Consumers' Supply Co., Murfreesboro Tenn.

Texas Independent Oil Men's Association Secretary, L. A. Greene, care Radio Petroleum Co., Fort Worth, Tex.

Virginia Independent Oil Men's Association. President, J. B. Belk, c/o Albemarle Oil & Gas Co., Inc., Garrett St. Charlottesville, Va.

West Virginia Oil and Natural Gas Association, Fairmont, W. Va. Secretary Treasurer, Edwin Robinson.

West Virginia Oil Marketers Association 513 Peoples Exchange Bank, Charleston, W. Va. Secretary and Treasurer D. E. Frierson.

Western Petroleum Refiners Association 504 Cosden Bldg., Tulsa, Okla. Managing Director, Howard Bennette.

Wisconsin Independent Oil Jobbers Association. Field Secretary, R. A. Overholser, Gay Bldg., Madison, Wis.

Wyoming Petroleum Club. Secretary G. H. O'Donnell, 847 So. Lincoln St. Casper, Wyo.

Magnolia Pipeline Runs for October

HOUSTON, Nov. 2?.—Magnolia Petroleum Company, pipeline department, announces from Dallas headquarters the following crude oil runs for October, which are shown in comparison with September:

	September	October
Hewitt-Graham	142,115.28	143,577.31
Healdton	211,649.47	231,483.52
Cushing	111,875.95	157,853.81
Yale	65,365.00	71,299.82
Cement	21,810.67	25,456.66
Duncan	49,166.84	50,470.66
Augusta	36,231.35	38,927.45
Walters-Beaver Creek	7,866.27	8,645.68
Burbank	48,487.73	66,019.29
Wewoka	350,255.71	418,747.40
Bristow	.....	.....
Total Okla.-Kans.	1,044,824.27	1,212,481.60
Tbrall	1,688.37	1,533.97
Electra	106,917.88	106,810.33
Burkburnett	76,258.13	77,086.32
Henrietta	4,311.45	4,838.57
Corsicana Heavy	9,186.18	8,480.83
Corsicana Light	19,163.17	15,681.74
Comanche	23,146.94	24,378.51
Olden	17,551.21	17,260.90
Stephens	12,159.15	12,697.04
Coleman	148.75	152.56
Mirando	152,715.72	147,483.14
Mexia-Wortham	52,975.55	48,741.14
Luling	472,076.11	462,843.17
Archer	78,147.49	92,716.56
Lytton Springs	72,678.60	71,171.37
Eatan	3,768.19	8,037.07
Panola	593.84	607.12
Panhandle	393,194.56	367,285.07
Gulf Coast	46,402.81	26,629.05
Total Texas	1,543,084.10	1,494,434.46
Haynesville	5,132.96	4,289.31
Bull Bayou	37,541.75	36,480.42
Cotton Valley	26,920.66	23,330.16
Pine Island	19,798.81	24,953.22
Total Louisiana	89,394.18	89,053.11
El Dorado Light	57,202.23	47,691.75
East El Dorado	2,029.02	1,768.25
Smackover	123,748.27	124,991.59
Total Arkansas	182,979.52	174,451.59
Grand Total	2,860,282.07	2,970,420.76

OKLAHOMA-KANSAS

Report for October, 1926		Daily Average
Runs	1,212,482.00	39,122.00
Shipments	1,525,327.00	49,204.00
Stocks	3,440,253.00	.....

TEXAS

Wichita, Wilbarger, Archer	Runs	306,720	9,894
	Shipments	291,534	9,404
Petrolia	Runs	4,839	156
	Shipments	4,839	156
Eastland, Stephens	Runs	55,407	1,787
	Shipments	172,241	5,556
Total Stocks		1,725,959.00	

North Central Texas Field

Sinclair Active Along New Route

CAMBRIDGE, O., Nov. 26.—The Cleveland-to-Florida highway is now open all the way, and John F. Osborn, agent for the Sinclair Refining Co. at Cambridge, says it is well worth one's time to make this trip which requires only three days from Cleveland to Jacksonville, Fla., via Cambridge, Marietta, Parkersburg, Charleston, Bluefield, Asheville, Atlanta and Jacksonville.

COATESVILLE, PA.—Coatesville Oil Co., distributor of Texaco products since 1916, recently installed storage tanks to handle increasing business. The company has also added fuel and furnace oils to its line and business is reported by Homer N. Gebhard, proprietor, to be good.

TULSA, Nov. 26.—The Ohio Oil Co. is building a Newton absorption plant near Robinson, Ill. The plant will have a capacity of 8000 gallons a day.

This Equipment will save enough to pay for itself in a short time

Pease Peerless Continuous Blue Printing Equipment

Free Catalog Shows How to Cut Blue Printing Costs

NO matter how many blue prints you use in a year, write for this catalog It is a regular encyclopedia of blue printing information. Pictures and describes the complete Pease Line No obligation

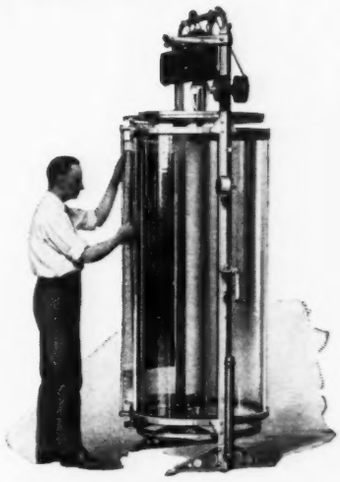
"Will It Pay Us To Make Our Own Blueprints?"

Here's the question answered truthfully! Thousands of blue-print users could make substantial savings if they had their own blue printing equipment.

Savings In Cost---because if you can keep a Pease Blue Printing Machine busy, just a few hours each day, the equipment will pay for itself in a suprisingly short time through low operating costs.

Savings In Time---because with a Pease Blue Printing Machine you can turn out finished blue prints---printed, washed, potashed, dried and ready to use in one-quarter the time required when using independent methods of washing and drying. No delay due to outside assistance and possibilities of error are reduced to a minimum because each operation is entirely under your own control.

Nothing complicated---nothing to break or get out of order---any intelligent office boy can easily learn to make perfect blue prints on a Pease machine. You are not obligated in the slightest by asking for further information on the advantages of Pease Machines.



Pease Vertical Blue Printing Machine

THE Pease Vertical Blue Printing Machine will turn out a supply of perfect blue prints, whenever you want them, regardless of weather conditions, at a faster rate of speed than any other equipment of its type. Get the facts about this remarkable machine. Write for our catalog.

Write for Catalog M-45

THE C. F. PEASE COMPANY

845 N. Franklin Street

Chicago, Ill.

PEASE CHICAGO

ROBERTSON METAL SIGNS

A GOOD way to judge a man is to take stock of the company he keeps. Do likewise when judging a product—take note of the sort of firms that use it. With pardonable pride we name a few companies that specify "Robertson" when ordering metal signs—pretty good evidence that Robertson Metal Signs are outstanding in quality and "right" in price.

Pennzoil
Eveready Batteries
Coca Cola
Eastman Kodak
Champion Spark Plug
Sinclair Refining Co.
U. S. L. Batteries
Bosch Shock Absorbers

And scores of others equally well known.

We stand ready to demonstrate our fitness to handle your metal sign requirements to your satisfaction. Name the product and we will, without charge, submit sketches in color, along with a quotation in which you are bound to be interested.

The W.F. Robertson Steel & Iron Co.
The Elwood Myers Co. Div.
Springfield, Ohio

Let us Quote on Your Requirements

Sprinting Runners Drive Home Thought of Gasoline Quality

SAN FRANCISCO, Nov. 27.—What is proving to be the most successful and profitable advertising campaign from point of interest among the trade and from increased business that it has ever put on, is the one now being conducted by the Associated Oil Co., with headquarters here. It is featuring its new slogan "Start, Stride, Finish", illustrated by actual poses of three runners in various phases of a run, symbolizing the qualities of Associated gasoline.

Believing that the motoring public no longer becomes excited over gasoline advertisements which make their appeal on some recognized essential of a good gasoline, the Associated company, in planning its 1926 newspaper advertising campaign, decided to direct the consumer's attention to the fact that there were other qualities equally important in gasoline that he could expect for his money.

In an effort to drive home to the reader the three points that make satisfactory motor operation as any motorist understands it, the Associated hit upon the slogan it is now using.

To illustrate the performance of its gasoline, "Start, Stride and Finish" are personified by three runners in characteristic positions, the pictures being taken of actual poses of runners. "Start" is illustrated by a runner at the beginning of the run; "Stride" at the height; and "Finish" in the home stretch. These three runners and their names illustrated the idea of the slogan in each advertisement, but the text is varied in each instance to keep the reader interested. Constant pressure is maintained on the three main points of economical operation, mileage and quality.

Four advertisements were used to introduce the campaign to motorists. The first showed an announcer before a microphone, asking his audience what it wanted from the gasoline it buys. The answer was given in a statement in the text that 999 out of every 1000 motorists demand the combination of quick starting, full stride of power and mileage. It is for these three, principles of motor operation that the slogan stands.

The text of the advertisement is always hooked up with the three sprinting figures under appropriate captions. One is captioned "It Takes All Three" and another "More Miles to the Gallon", while the runners appear in each advertisement in either the foreground or in miniature.

An advertising stunt which marks the Associated dealer as a wide awake business man is the appeal to the new car owner for his gasoline and oil business which it achieves through a special multigraphed letter, on a special letter head, over the signature of the district agent. These letters are prepared at the Associated offices and mailed out to new car owners in a dealer's territory.

In cases where the dealer prefers to prepare his own letters, the company furnishes him with the special dealer letter head, and also with envelopes imprinted with his name and address.

A follow-up system to remind the customer of the length of the time that has elasped since his car was last serviced, forms another part of the advertising campaign. A card is mailed to the customer after the lapse of 30 days and another one 15 days later if he has not stopped for crank case service. The company finds that large number of 30-day cards are used, but demand for the 45-day card is lighter, indicating that the majority heeds the first notice.

Another reminder of crank case service is a little sticker advertising Cycol, the company's motor oil, which is placed either on the speedometer or the instrument board at the time the oil is changed. It is being furnished to the dealer with his name and address imprinted on the face.

A combined job card and storage tag is furnished to resellers operating garages, and special tags have been prepared for those who have certain preferences or who feature certain services which they want to advertise.

What the company claims to be the brightest electric sign in San Francisco, is the Associated sign that flashes atop the Pantages Bldg., commanding a view of the down town section. The sign weighs 15 tons, is 72 feet high, which is the height of the building on which it stands, and 53 feet wide. The Associated emblem is 95 feet in circumference and the gasoline measure is 14 feet high and 10 feet wide, 1600 electric lights are used and 3500 bolts hold the sign and the supporting framework together.

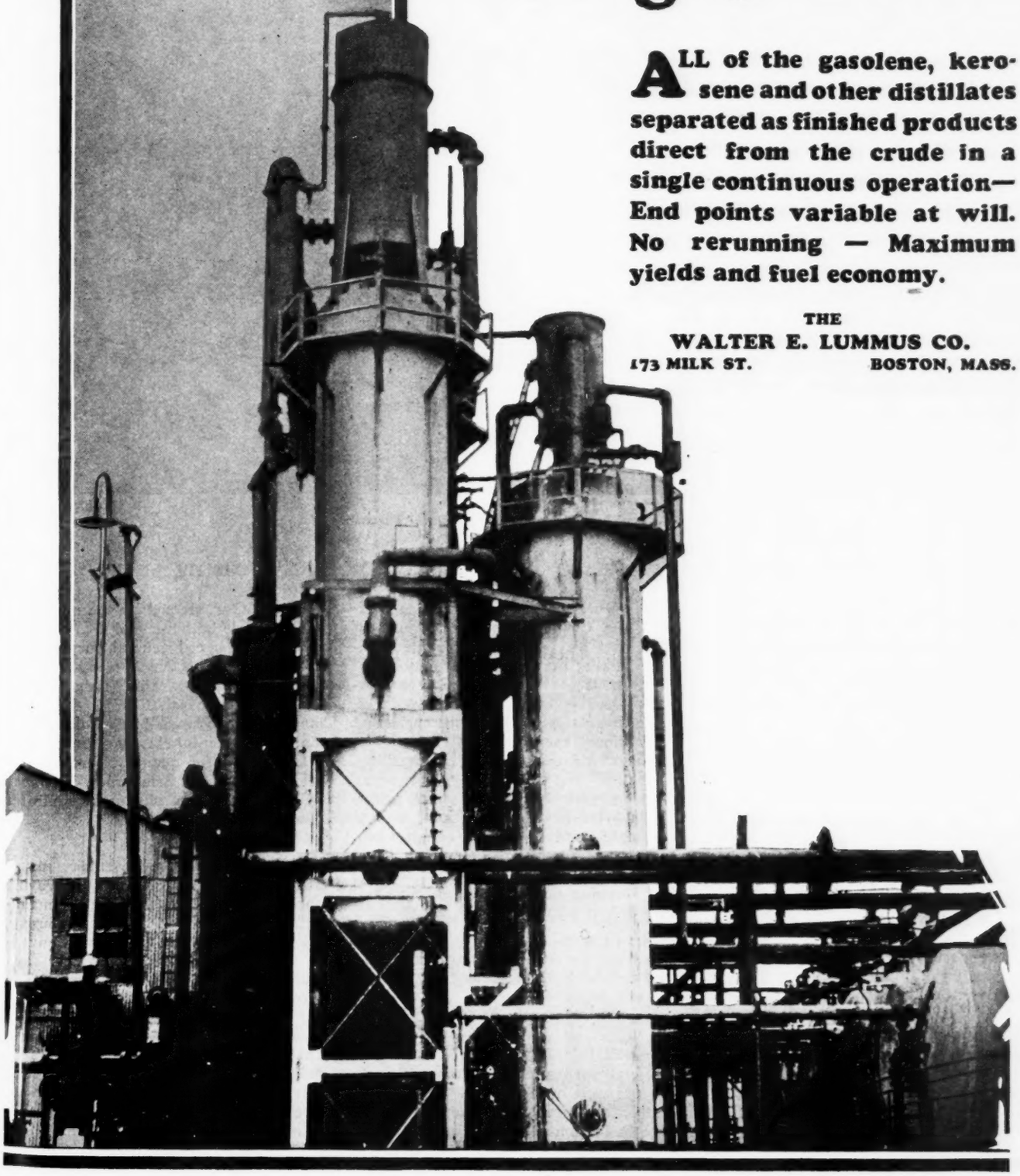
P. & R. to Market Veedol

DENVER, Nov. 29.—Under a new long term contract with the Tide Water Oil Sales Corp., the Producers & Refiners Corp., subsidiary of the Prairie Oil & Gas Co., will distribute Veedol motor oils and greases in Idaho, Utah, Wyoming, Colorado, Arkansas and Tennessee.

The P. & R. has refineries at Parco, Wyo., and Tulsa and Blackwell, Okla. It markets through distributors as well as through its subsidiary companies. The latter include the Independent Gas & Oil Co., Salt Lake City, which markets in Utah, southern Idaho and southwestern Wyoming. The Producers & Refiners of Tennessee cover Tennessee and Arkansas. The Hagan Oil Co., with headquarters at Shattuck, Okla., also is a subsidiary.

LUMMUS

Low Temperature Refining System



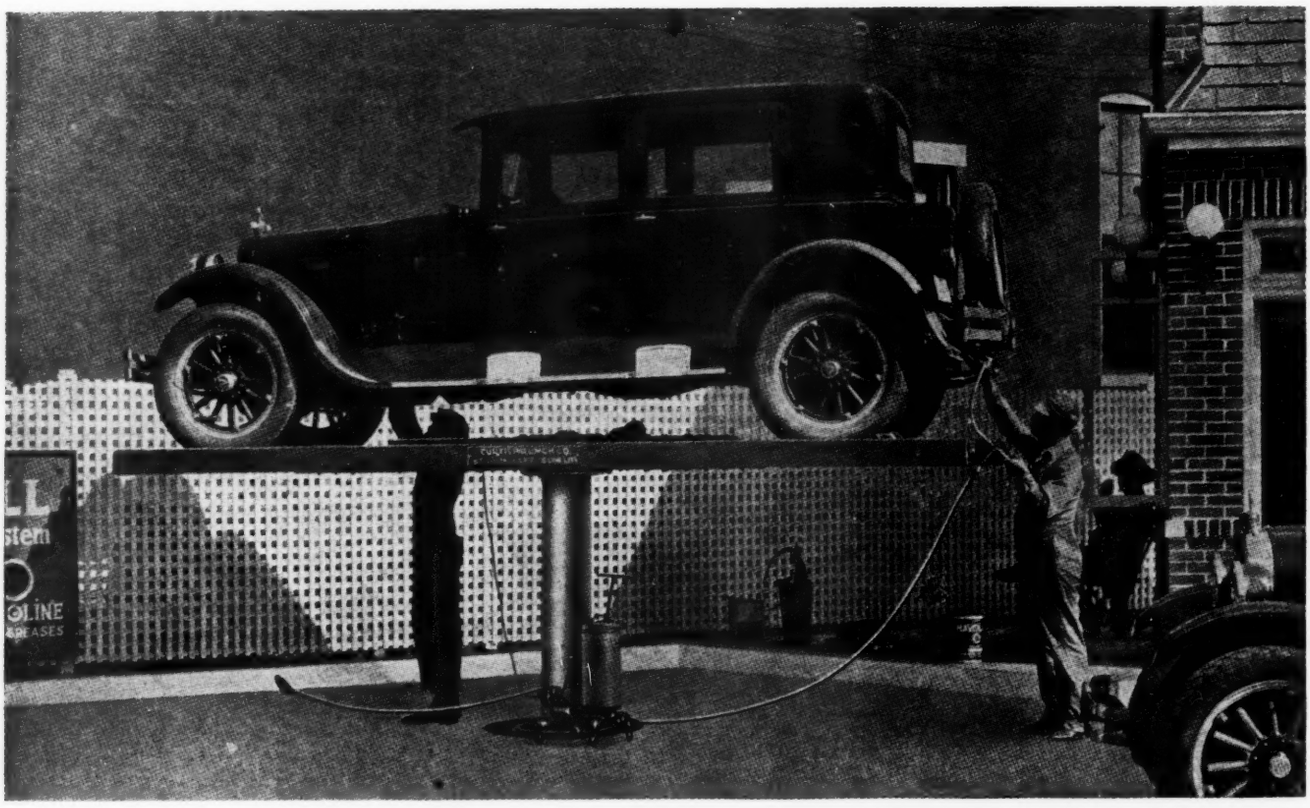
ALL of the gasolene, kerosene and other distillates separated as finished products direct from the crude in a single continuous operation—End points variable at will. No rerunning — Maximum yields and fuel economy.

THE
WALTER E. LUMMUS CO.
173 MILK ST. BOSTON, MASS.

New Equipment for Plant Improvement

Personal Notes of the Manufacturers

National Petroleum News



This is the rotating automobile lift put out by the Curtis Pneumatic Machinery Co.

Puts Out New Rotating Lift for Automobile Greasing

THE Curtis Pneumatic Machinery Co. St. Louis, has just announced the development of a new rotating automobile lift operated by compressed air. The company states this lift can be operated by air furnished by the ordinary compressor used at every filling station for tire service if the compressor is provided with an oversize tank or an auxiliary tank.

Among the features claimed for the Curtis lift are: It has only a 34-inch pit; it elevates the car five feet, giving plenty of headroom for the workman; it can be rotated when in lowest position so as to line up the front wheels of the car with the runways; there is no chance of running the car off the runway and dropping it into the pit; it goes up rapidly and comes down slowly; the car driver, having driven onto the lift, can easily step down to solid ground; the runways in the Curtis lift are made of 12-inch I-beams so that the lift will not bend under the heaviest car.

Full details concerning the lift are contained in an illustrated bulletin B-2 which is ready for distribution to the trade.

In celebration of its 73 years in business, the Curtis company has just off the press an attractively covered, 40-page catalog devoted to description and illustrations of its line of air compressors, traveling cranes, air hoists and trolleys. Compressors of various types and for various uses are described. The Curtis air-mist system of car washing, air sands, and compressors for spray painting, with specifications and prices, are included in the descriptions, as well as singles and two-stage compressors, compressed air fittings, service car and air storage tanks, automatic starting and stopping devices, and gasoline engine driven outfits.

The catalog is captioned "The World Rides on Curtis Air" appropriately illustrated with a compressor on a cover finished in silver.

* * *

A REDUCTION in prices on its general purpose motors, amounting to five per cent on most lines and ten per cent on commonly used sizes of squirrel cage induction motors, has been announced by the General Electric Company, effective December 1, 1926.

The motors affected by the new price levels include both a-c, and d-c., constant and variable speed general purpose motors, from one to 200 horsepower.

Coincident with this reduction in prices, the General Electric Company has announced unified schedule of discounts for different classes of purchasers. The discount for quantity purchased at one time, on one firm order, has been made uniform on a sliding schedule for all classes of buyers.

* * *

Chain Belt Co., Milwaukee, manufacturer of elevating and conveying machinery, and specializing in the manufacture of chains for the oil industry, has just taken over the Stearns Conveyor Co., Cleveland, O., engineer and manufacturer of belt conveyors. The purchase included a manufacturing plant and some of the latter's branch offices which are at New York, Pittsburgh, Chicago and Salt Lake City. This makes the fifth subsidiary of the Chain Belt Co., the other four being Sivyer Steel Casting Co., Federal Malleable Co., Interstate Drop Forge Co., all of Milwaukee, and Nugent Steel Castings Co., Chicago.

Drawing from actual photograph of 3½ ton KELLY-SPRINGFIELD truck, operating in Clallam County, Washington—hauling largest log ever carried on a motor truck.

Dollar for Dollar

The Greatest Truck Value

of the Commercial Vehicle Industry

You have only to compare the initial cost of any *Kelly-Springfield* with that of any other corresponding truck—bearing in mind that *Kelly-Springfield* prices *include* seven-speed transmissions (except 1½ and 2 tons), steel wheels and radius rods as standard equipment—to discover that *Kelly-Springfield* offers beyond a doubt more truck per dollar invested than you can possibly obtain elsewhere.

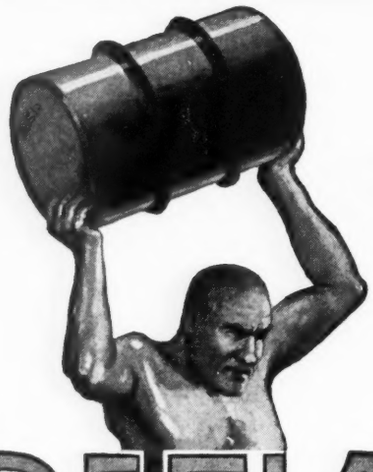
And it is not only the advantage of initial investment. For *Kelly-Springfield* has, for close to a score of years, been meeting every haulage problem dependably, efficiently, under the most severe operating conditions, at a substantially lower operating cost per ton mile than any competitive job.

It is conclusively evident, therefore, that dollar for dollar, *Kelly-Springfield* is actually—not theoretically—the supreme value of the motor truck industry. Sound business judgment will convince you of the wisdom of communicating with *Kelly-Springfield* before contracting for your truck requirements.

Six models—rated at 1½, 2, 2½, 3½, 5 and 7 tons—constructed with powerful, economical engines and the most successful form of final drive according to load capacity and type of service.

The Kelly-Springfield Truck & Bus Corporation
Springfield • Ohio

KELLY-SPRINGFIELD TRUCKS



WHY?

"DEFIANCE"

—because the men in back of the Defiance Steel Barrel have pledged themselves to make the best barrel that it is possible to build.

—because there is a type of Defiance Steel Barrel to fit your every need.

—because you can get Defiance Steel Barrels when you want them, due to adequate production and storage facilities.

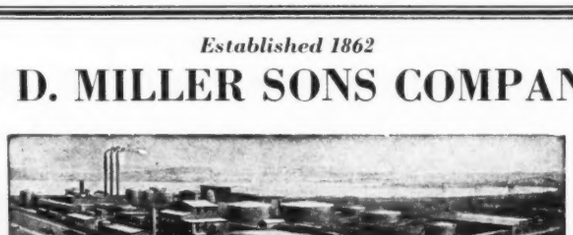
—because you always get your money's worth in a Defiance Steel Barrel.

Give them a trial and you will always use Defiance Steel Barrels.

The American Steel Package Co.
Defiance, Ohio

Established 1862

A. D. MILLER SONS COMPANY



MILLER'S OIL REFINING WORKS

REFINED PETROLEUM, GASOLINE, NAPHTHA, LUBRICATING OILS, MILL GREASE, &C.

PIONEER REFINERS OF PENNSYLVANIA OIL

PITTSBURGH PENNSYLVANIA

New Oil Station Construction

Pine Bluffs, Wyo.—Pete and Bill's Pine Bluffs Service Station is building an addition to its service station here, which will include facilities for greasing, tire changing and battery service under cover, as well as sales room for demonstrating and selling radio, according to H. E. Watson, representative of the Mona Motor Oil Co. here.

Proprietors of the service station are A. E. Carlstrum who is the "Pete" of the organization, and W. H. Harrison, who is "Bill".

* * *

Cleveland, O.—Columbia Refining Co. is contemplating the erection of a bulk plant on property it recently purchased in Painesville, O., according to Burt Zimmerman, secretary.

* * *

Foley, Ala.—The Sherrill Oil Co., Pensacola, Fla., is building three filling stations, one each for Jacob Lewis, A. H. Willingham and I. G. Wheatley.

* * *

Jamestown, N. D.—William and Claude Wakeman building filling station, to handle White Eagle Oil & Refining Co.'s products.

* * *

Aberdeen, S. D.—E. J. Addison completing service station in the Nicollet Park addition to Aberdeen, on the Yellowstone trail.

* * *

Columbus, O.—Standard Oil Co. of Ohio is building one bulk station and one service station at Neff and Cadiz, O.

* * *

Washta, Ia.—Eric Ritz leased property for filling station on the new road between Washta and Correctionville.

* * *

St. George, S. C.—H. M. Bryant is building bulk and service station here, to handle Sinclair products.

* * *

San Angelo, Tex.—Magnolia Petroleum Co. will complete its filling station here about Dec. 1.

* * *

Sweet Springs, Mo.—Turner & Kuhlman will build garage and filling station.

* * *

Canton, O.—The Citizens Oil & Gas Co. is building two service stations.

* * *

Fayetteville, Ark.—Continental Oil Co. will build service station here.

* * *

Huntington, Tex.—J. A. Thomas to build filling station and garage.

* * *

Chetopa, Tex.—Mr. and Mrs. Ray Tippins to build filling station.

* * *

Ashtabula, O.—C. F. Tuttle leases property for filling station.

* * *

Saylesville, R. I.—Robert Fee is building bulk station here.

Columbus, O.—The Accurate Measure Oil Co. is building filling station here, reports F. M. Morrison, president.

* * *

Ennis, Tex.—Buckhorn Filling Station, which burned some time ago, is being rebuilt.

* * *

Burlington, Ia.—T. C. Pilgram and Arthur L. Danielson seek permit for filling station.

* * *

Columbia, S. C.—Standard Oil Co. of New Jersey is building two service stations.

* * *

Le Roy, Minn.—Standard Oil Co. of Indiana plans erection of service station.

* * *

Albuquerque, N. Mex.—Continental Oil Co. to build $12,000 filling station.

* * *

Quintee, Kan.—E. J. Haney will add filling station to his store building.

* * *

Omaha, Neb.—Standard Oil Co. of Nebraska to erect service station.

* * *

Lexington, Ky.—Standard Oil Co. of Kentucky to erect filling station.

* * *

Rich Hill, Mo.—Standard Oil Co. of Indiana to build filling station.

* * *

Solomon, Kan.—George Palzer completing filling station on Main St.

* * *

Boonville, Mo.—Standard Oil Co. of Indiana to build service station.

* * *

Bowling Green, O.—Traffic Gasoline Co. is erecting filling station.

* * *

Drummond, Okla.—C. W. Graham will erect filling station.

* * *

Bald Knob, Ark.—C. E. Coleman completing filling station.

Freak Well in Kentucky

SISTERSVILLE, W. VA.—The Petroleum Exploration Co. assigned contractor Monroe McGuire 50 acres on south end of the 360-acre J. F. Brewer tract near Island City, Owsley county, Kentucky, for a drilling test which came in early on Nov. 9, flowing over the top of the mast. It was estimated conservatively at 200 barrels an hour for the first day and then 75 barrels an hour second day and shut off entirely on the third day.

The well is in the Big Injun sand and will be drilled deeper. Little oil was saved, mostly going into the Kentucky river. Much excitement prevails in the field. Most of the acreage is held by Petroleum Exploration Co. and Atlantic Oil Producing Co. The field is mostly gas with dry holes in the neighborhood and may develop into small pool.

SULLIGENT, ALA.—Standard Oil Co. of Kentucky has installed a storage tank of 22,000 gallon capacity here.

GULF Refining Company

General Sales Offices
PITTSBURGH, PA.
District Sales Offices
New York, Houston, Atlanta, Boston, New Orleans, Tampa, Philadelphia

REFINERS OF OKLAHOMA TEXAS AND LOUISIANA

PETROLEUM

REFINED OIL
GASOLINE
NAPHTHA
GAS OILS
PARAFFINE WAX
ASPHALT

Fuel Oil--Lubricating Oils

CYLINDER ENGINE
CORDAGE

RED AND PALE PARAFFINE OILS

The Holmes-Manley *Cracking* Process

Uninterrupted operation over long periods of time is characteristic and one of the distinct advantages of the Holmes-Manley Process.

A run of 116 days was recently completed, charging 107375 barrels.

The Licensee receives:—

1. *A Proven Process*
2. *Complete Technical Service*
3. *The Benefit of Future Developments*

Licenses Granted by

THE TEXAS COMPANY, U. S. A.

Apply to

W. S. S. RODGERS

17 Battery Place, New York, N. Y.

ON THE LAZY BENCH

National Petroleum News

Pete's Marketgram

Standing out like a fly in a pan of milk are two good things that happened at this last election, and both of them are the defeat of 'Bevo' (because he is not the real thing) Bryan for governor of Nebraska. As you will recall he is the bimbo who tried, and darn near succeeded, in putting a Gypsy curse on the gasoline business when the people thoughtlessly elected him governor a few years ago.

Down this way the only surprising thing was the early vote election day, and from what we have heard since then, some folks must have voted both early and often.

Well folks, we have had mingling among us of late, representatives of the Federal Trade Commission, who seem hell bent on learning whether prices are controlled among the little fellows in the refining business, which sure is a hard one on chapped lips. One of them called on the boss, but left us with a clean bill of health, saying we knew nothing and even suspected less.

With scientists wasting time trying to control sex before birth, when no one can do it afterward, there is cause for a snicker, but when a bird starts talking about any one or a group in this business sticking together to control prices its time for a real he-haw.

No sir, we refuse to wrinkle a brow over such as that when there are so many other more pleasant and desirable things to worry about. Zero, the red head steno, says it is getting harder and harder for a girl to get by without stockings being silk all the way up, though personally we look for that condition to ease up a bit, as the limit in short skirts has about been reached, in fact we think the end is in sight.

This is me, Pete signing off at just half past o'clock.

Pete Roleum
Refiners Consolidated
Sales Co., Wichita, Kans.

◈ ◈ ◈

A Scotch wife nagged and nagged her husband until the poor fellow died. Then she was sorry, very sorry, so she erected a fine stone over his grave on which she had carved the following inscription:

"Rest in peace until I join you."

—Keene Thrusts

◈ ◈ ◈

New Curate (to oldest parishioner): "Mr. Brown, I've got to find out a lot of things about this district. Being one of the oldest members, you will know all the ins and outs of the place."

Mr. Brown (without a pause): "Well, sir, A ken a' the inns."

Interpreted

An Englishman just returning to London from a visit over here was much impressed with our slang phrase, "So's your old man." In telling his friends about it he explained, "You know they have a deucedly funny saying ovah theh when they question wot you say. Instead of sneering, 'Fiddlesticks—or you don't mean it, old chappie,' they say, 'Oh, hell, fawther is the same way.' Clevah isn't it? Haw, haw."

—Bottles

◈ ◈ ◈

A traveling salesman, having at last succeeded in getting an order out of one of the largest firms in the North, purchased a big box of costly cigars which he intended to present to the manager as a token of his gratitude. But the manager was highly offended.

"Naw, naw, mon," said he; "I canna tak' them. It's just bribery; that's what it is."

"But surely," persisted the salesman, "You can accept a present from me."

"I couldna, mon; I couldna' do it."

"Well, then, I'll tell you what—I'll sell the cigars to you for a purely nominal sum; say a quarter for the box."

"Well, that's different," answers the scrupulous one. "An' you're so pressin' I'll pay ye cash for three boxes."

—Keene Thrusts

◈ ◈ ◈

They were having a round together at St. Andrews. "Do you know," she said sweetly. "I have often wondered why you Scotchmen are so fond of golf. Now I know."

"Why?" he asked.

"Because it's a game that one can scarcely learn. It's a gift." And then she wondered what she had done to offend him.

—Keene Thrusts

◈ ◈ ◈

Rattles

"The bartender smashed six bottles of whiskey on the floor when I entered the place, said the prohibition agent.

"Ah," said the lawyer, "but you didn't taste it, smell it, or analyze it, did you."

"No, but the customers all burst into tears."

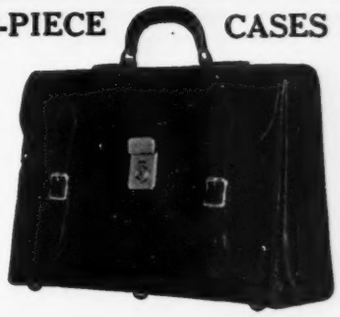
—Keene Thrusts

◈ ◈ ◈

A writer says that anyone who questions the progress made in fiction should turn to the magazines of twenty years ago. That reminds us that we have to pay our dentist a visit.

—Keene Thrusts

2-PIECE CASES



303 Folio and inner Case, Only $16.50

Less 10% for cash

Made from heavy black cowhide with stiffened bottom, reinforced with metal studs. Extension lock and strong, comfortable handle. There are 3 roomy pockets for stationery and Inner Case, which has a handle and may be carried separately. It is velvet lined with compartment containing 9 four oz. bottles and 4 one half oz. jars. Your name embossed in gold *free*. Satisfaction guaranteed or your money returned.

Other Styles in our FREE Catalog

L-U-C-E

Builders of Sales Luggage
614 Delaware KANSAS CITY, MO.

"CUT OIL"

is a problem in CHEMISTRY

An "emulsion" represents a condition of a liquid which can be fully, scientifically and economically corrected by use of the chemial process. Use TRET-O-LITE process when you have cut oil and tank bottoms that require treating.

Wm. S. Barnickel & Co.
St. Louis, Mo.

Tret-O-litE

Reg. U. S. Pat. Off.

We have perfected a Winter Grade of Tagolene Ford Oil

Here's still another talking point to help you sell Tagolene Ford Oil—we are now making a *winter* grade, with zero cold test.

Anyone who keeps his car in an outdoor garage—and nearly every one does—knows how disappointing it is to hear Ford bearings slowly "thump" their way through congealed crank-case oil. A big drain on a battery—and mighty trying on the owner's nerves, especially when he has to get out and use the crank.

We do not want Ford owners using Tagolene to be "cranky" so we go to extra expense in dewaxing a paraffin base oil to a zero cold test, producing an oil which we know will give better service than zero oils of asphalt base.

To the four arguments built around the use of Grumeol, we add this winter appeal—to help you convince a Ford owner he should try Tagolene Winter Ford Oil.

TAGOLENE

MADE BY THE REFINERS

Refinery - Tank Wagon Markets

National Petroleum News

Demand for Mid-Continent Gasoline Picks Up; Heavier Oils Stronger

Staff Special

TULSA, Nov. 27

A BETTER domestic demand for gasolines and some of the heavier oils after the Thanksgiving holiday, coupled with considerable export buying of both gasolines and kerosenes had improved the frame of mind of Mid-Continent markets as the week closed, although prices were generally unchanged over those put into effect last Monday.

That the refiners were taking a more optimistic view, however, was shown by the fact that one large Oklahoma refiner announced that he had advanced his quotation on 58-60 U. S. Motor price, a quarter of a cent to 9¼ cents. Three or four smaller refiners who had been taking some orders at 8¾ cents, announced that their prices had been advanced to 9 cents minimum.

The export buying was done both in Oklahoma and Texas. Various reports were heard as to the total. As far as could be checked by the writer, however, one independent export company on last Wednesday bought around 3,000,000 gallons of 390 end point gasoline from a large Oklahoma refiner. The gravity was to run around 61 degrees, it was understood, the price to be 9¾ cents. The refiner making this sale immediately advanced his quotation on U. S. Motor to 9¼ cents. The same company bought from this refiner approximately a million gallons of kerosene, the price being reported at 6 cents.

On Friday another large Independent export company bought a million gallons of 64-66, 375 e. p. gasoline in Oklahoma and a similar amount in Texas. This company was offering 10⅜ to 10½ cents per gallon, f. o. b. north Texas plants, for material available for immediate shipment, according to reports received here, and was also trying to place a few orders for over the remainder of the year. This company also bought a million gallons of kerosene in Oklahoma. It has been buying kerosene at odd times in Texas for the past two or three weeks, paying 6 cents per gallon for export grade. Still another refiner late in the week booked an order for a million gallons of kerosene but did not divulge the purchaser.

Exporters have been sufficiently active so far this month to account for sales of 7,500,000 to 10,000,000 gallons of high gravity gasoline and between 4 and 4½ million gallons of kerosene. This is the first active wave of export buying since early in the summer, except for purchases to fill out cargoes, or to bring material in storage up to specifications.

U. S. Motor Steady

SINCE the Standard Oil Co. of Indiana did not reduce tankwagon gasoline prices after the recent crude cut, the trade here now is inclined to the view that the Standard officials want to keep the tankwagon structure steady provided the refinery price of gasoline does not go any lower.

Pierce Petroleum Corp. this week joined the ranks of those who are blending their U. S. Motor with natural gasoline a 60-62 gravity blend with quick-starting qualities. Gasoline of lighter than 437 end point, meanwhile, have just about faded from the picture even for blending purposes.

Several reports were heard that considerable U. S. Motor had been bought for export during the week, but as far as could be checked very little if any was actually sold. The domestic demand, however, took care of the production at many plants, according to salesmanagers. The price of U. S. Motor in Oklahoma moved down to 8¾ to 9 cents Monday, and remained unchanged throughout the week at those prices.

The U. S. Motor market in Kansas, Louisiana and Arkansas also showed no changes during the week, while in Texas the situation showed slight improvement today.

Domestic sales of 60-62, 400 e. p. gasoline were good again this week, and the price in Oklahoma was firmly pegged at 10 cents. Two refiners Wednesday advanced quotations to 10¼ cents, while another one today moved up to 10⅜ cents.

The 64-66, 375 e. p. gasoline situation in Texas has been good for the past three or four weeks. Considerable difficulty was experienced by the exporter who bought this week in obtaining material for prompt shipment. Most of the plants are well sold up until around the first of the year. The domestic demand has been sufficient so far to take care of any odd cars not moving out to export.

Naturals In Good Shape

NATURAL gasolines in Oklahoma moved lower in price last Monday. Grades A and AA, however, remained unchanged Tuesday and Wednesday at 9⅛ to 9¼ cents, but moved back up to 9¼ cents today. Grades B and BB and Grade C, however, continued to move lower, with some distress material appearing on the market.

One large company in Texas was reported to have made a contract this month with a large manufacturer for Grades A and AA, the contract calling for 50 to 100 cars a month for the period of one year. This company meanwhile has renewed a contract for 1927 with another manufacturer.

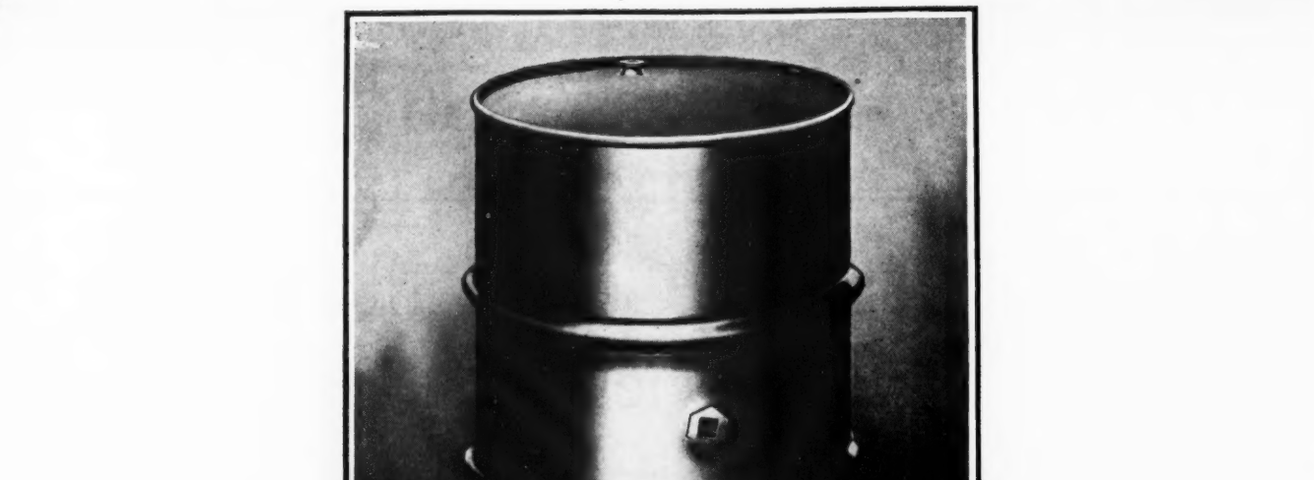
Natural gasolines meeting doctor and corrosion test apparently are in good demand at present, the untreated material being credited with having kept the prices from advancing. One large jobber is selling Grade A as a premium gasoline and a manufacturer said Friday he could get a quarter of a cent above the present market from his jobber on 40 to 50 cars a month.

With the completion of several plants in the Panhandle, natural gasoline moving from that are has had some effect on the market. The material can move to points west of the Mississippi river at the same rate as Group 3. It can move south on the Santa Fe to that railroad's export points on a 22½-cent rate, but to other points south it takes a 25-cent rate as compared with a 22½-cent rate from Oklahoma and a 20½-cent rate from Breckenridge. In moving east the rate at some points is as much as 10 cents over Group 3.

Domestic Kerosene Orders Light

THE export buying of kerosene had a tendency to stiffen prices for domestic sales but not sufficiently to warrant price changes. The domestic demand several refiners, reported has been light for several weeks. Refiners moved 41-43 w.w. kerosene at 6¼ to 6½ cents during the week.

(Continued on page 117)



Insure Enroute

STEEL production, sheet rolling, Drum forming, and assembly—the whole job of making Wheeling Steel Drums is performed by one organization, with full knowledge of modern shipping requirements, assisted by every needed manufacturing facility "From Mine to Market".

Insure enroute. Your products are worthy of all the protection in transit that can be provided by Wheeling Steel Drums. Ask our Barrel Sales Division, Portsmouth Works, Portsmouth, Ohio, to consult with you on your needs.

WHEELING STEEL CORPORATION, WHEELING, W. VA.
Barrel Sales Division, Portsmouth, Ohio

WHEELING

STEEL DRUMS

"From Mine to Market"

Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California and New England

GASOLINE AND NAPHTHA

	Prices Nov. 29	Prices Nov. 22	Prices Nov. 15
PENNSYLVANIA			
52-54 Naphtha	11½-12	11½-12	11½-12
54-56 Naphtha	11¾-12	11¾-12	11¾-12
58-60 Gasoline	11¾-12	11¾-12¼	11¾-12
60-62 Straight-run gasoline	12¾-13	12½-13	12½-12¾
64-66 Straight-run gasoline	13½-13¾	13½-13¾	13½-13¾
68-70 Straighr-run gas.350-360 E.P.	14 -14½	14 -14½	14 -14½
68-70 Straight-run gs.305-320 E.P.	17 -18	17 -18	17 -18
OKLAHOMA			
48-50 450 E. P. naphtha	8¾- 9	8¾- 9	- 9
50-52 450 E. P. naphtha	8¾- 9	8¾- 9	- 9
56-58 450 E. P. gasoline	8½- 8¾	8½- 8¾	8¾- 8⅞
56-58 U. S. Motor gasoline	- 8¾	- 8¾	8⅞- 9
58-60 450 E. P. gasoline	8⅝- 8¾	8⅝- 8¾	8¾- 8⅞
58-60 U. S. Motor 437 E. P.	8¾- 9¼	8¾- 9	9 - 9¼
60-62 400 E. P. gasoline	10 -10¼	10 -10⅛	10 -10¼
64-66 390 E. P. gasoline	-10¼	-10¼	-10¼
64-66 375 E. P. gasoline	10⅛-10¾	-10½	10¾-10½
68-70 350-360 E. P. gasoline	11⅛-11⅛	11¼-11⅜	11⅛-11⅜
64-66 437 E. P. blend	- 8¾	- 8¾	- 9
KANSAS*			
58-60 U. S. Motor gasoline	9⅜- 9⅜	9¼- 9⅜	9⅜- 9⅝
60-62, 400 E.P. gasoline	-10¼	10¼-10½	10¼-10½
64-66, 375 E.P. gasoline	-10¾	-10¾	-10¾
*F. O. B. refinery Kansas destination.			
NORTH TEXAS			
48-50 450 E. P. naphtha	8½- 8¾	8½- 8¾	- 9
56-58 450 E. P. gasoline	8¼- 8½	8¼- 8½	- 8¾
58-60 450 E. P. gasoline	8¼- 8½	8¼- 8½	- 8¾
56-58 U. S. Motor gasoline	8½- 8⅝	- 8½	8¾- 8⅞
58-60 U. S. Motor gasoline	- 8¾	8½- 8¾	- 9
64-66 390 E. P. gasoline	10 -10⅜	10 -10⅜	10 -10⅜
64-66 375 E. P. gasoline	10⅜-10½	10¼-10½	10⅜-10½
68-70 350-360 E. P. gasoline	11⅛-11¼	11⅛-11¼	11 -11⅛
NORTH LOUISIANA			
58-60 U. S. Motor 437 E. P.	9 - 9¼	- 9	9⅛- 9⅜
ARKANSAS			
56-58 450 E. P. gasoline	- 8⅞	- 8⅞	- 9
58-60 450 E. P. gasoline	- 8⅞	- 8⅞	- 9
58-60 U. S. Motor gasoline	- 9	- 9	9⅛- 9¼
CALIFORNIA			
*54-58 U. S. Motor 437 E. P.	9 - 9½	9 - 9½	9 - 9½
*58-61 U. S. Motor, 437 E. P.	10½-10¾	10½-10¾	10½-10¾
*42-45 Engine distillate,445-480E.P.	7 - 7½	7 - 7½	7 - 7½
*2c tax to be added if used in state.			
NEW ENGLAND (F. O. B. Boston and Fall River)			
58-60 U. S. Motor gasoline	-12⅛	-12⅛	-12¼

NATURAL GASOLINE

(Note: End point of all grades, not over 375° F.)

OKLAHOMA			
Grade AA, 80-87.9 375 E. P.	- 9¼	9⅛- 9¼	9¼- 9⅜
Grade A, 72-79.9 375 E. P.	- 9¼	9⅛- 9¼	9¼- 9⅜
Grade BB, 84-92, 375 E. P.	8½- 8¾	8⅝- 8¾	8¾- 8⅞
Grade B, 76-83.9, 375 E. P.	8½- 8¾	8⅝- 8¾	8¾- 8⅞
Grade C, 80-90, 375 E. P.	†8 - 8¼	- 8½	- 8¼
NORTH LOUISIANA			
*Grade Double A	- 9½	9¼- 9¾	- 9¾
*Grade Double B	- 9	- 9¾	- 9½
*Grade C	- 8½	- 9	- 9¼
*F. O. B. Monroe District.			
NORTH TEXAS			
*Grade Double A	- 9⅜	- 9¼	9¼- 9⅜
*Grade A	- 9⅜	- 9¼	9¼- 9⅜
*Grade Double B	8¾- 8⅞	8¾- 8⅞	-†9
*Grade B	8¾- 8⅞	8¾- 8⅞	-†9
*Grade C	- 8¾	8⅝- 8¾	8⅞- 9
*F. O. B. Breckenridge.			
CALIFORNIA			
75-85, 375-390 E. P. blend	10½-11½	10½-11½	11 -11½
PENNSYLVANIA			
68-70 Grav. 437 E. P. blend	12½-12¾	12½-12½	12¾-12½
64-66 Grav. 437 E. P. blend	12¼-12½	12¼-12½	12¼-12½
60-62 Grav. 437 E. P. blend	12¼-12½	12¼-12½	12¼-12½
68-70 Grav. 420 E. P. blend	12½-12¾	12½-12¾	12½-12¾

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	8¼- 8½	- 8¼	8¼- 8½
48 Water White Kerosene	8¾- 9	8¾- 9	8¾- 9
47 Water White Kerosene	9 - 9½	9 - 9½	9¼- 9½
OKLAHOMA			
41-43 Water White Kerosene	6¼- 6½	6¼- 6½	6¾- 6¾
42-44 Water White Kerosene	- 7	6¾- 7	- 7
KANSAS			
41-43 w. w. kerosene	6¾- 7	6¾- 7	- 7
42-44 w. w. kerosene	7⅛- 7¾	- 7¾	- 7¾
NORTH TEXAS			
40-42 Water White Kerosene	6 - 6¼	6 - 6¼	- 6⅜
41-43 Water White Kerosene	6¼- 6⅜	- 6¼	- 6½
NORTH LOUISIANA			
41-43 Water White Kerosene	- 7	- 7	7 - 7¼
ARKANSAS			
41-43 Water White Kerosene	- 7	- 7	- 7
*Quotations Only.			
†Nominal			

	Prices Nov. 29	Prices Nov. 22	Prices Nov. 15
CALIFORNIA			
38-40 Water White Kerosene	6 - 6¼	6 - 6¼	6 - 6¼
NEW ENGLAND			
**40-43 Water White Kerosene	**-10¼	**-10¼	**-10¼

NEUTRAL OIL

PENNSYLVANIA (Viscosity at 70° F.)			
200 Vis. No. 3 Assoc. Filt.	28½-29	28½-29	28¼-29
180 Vis. No. 3 Assoc. Filt.	-26½	26½-27	25½-26½
150 Vis. No. 3 Assoc. Filt.	23 -23½	23 -23½	22½-23¼
(Non-Viscous)			
34 Grav. 350-360 Flash	7¾- 8¼	7¾- 8¼	7¾- 8¼
36 Miners Neutrals 300-305 Flash	7¼- 7¾	7¼- 7¾	7¼- 7¾
OKLAHOMA (Viscosity at 100° F.)			
100 Vis. No. 2 color	7 - 7¼	7 - 7¼	7 - 7¼
150 Vis. No. 3 color	9 -10	9 -10	9 -10
150 Vis. No. 4 color	- 9¾	- 9¾	- 9¾
180 Vis. No. 3 color	10 -11	10 -11	10 -11
180 Vis. No. 4 color	10 -10½	10 -10½	10 -10⅜
180 Vis. No. 5 color	10 -10¾	10 -10¾	10 -10¾
200 Vis. No. 3 color	10¾-11¾	10¾-11¾	10¾-11¾
200 Vis. No. 4 color	-11½	-11½	-11½
200 Vis. No. 5 color	9¾-11¼	9¾-11¼	9¼-11¼
220 Vis. No. 3 color	12 -13½	12 -13½	12 -13⅜
220 Vis. No. 4 color	-13	-13	-13
220 Vis. No. 5 color	12 -12¾	12 -12¾	12 -12¾
240 Vis. No. 3 color	14 -15	14 -15	14 -15
240 Vis. No. 4 color	-14½	-14½	-14½
240 Vis. No. 5 color	13 -14	13 -14	13 -14
280 Vis. No. 3 color	16 -17	16 -17	16 -17
280 Vis. No. 4 color	-16½	-16½	-16½
280 Vis. No. 5 color	15 -16	15 -16	15 -16
300 Vis. No. 5-6 color	-17	-17	-17
GULF COASTAL (Viscosity at 100° F; cold test 0)			
100 Vis. No. 2 Color Unfilt. Pale	8 - 9	8 - 9	8¼- 9
200 Vis. No. 3 Color Unfilt. Pale	11 -12	11 -12	11 -12
300 Vis. No. 3 Color Unfilt. Pale	12 -13	12 -13	12 -13
500 Vis. No. 3½ Color Unfilt. Pale	14 -15	14 -15	14 -15
750 Vis. No. 4 Color Unfilt. Pale	17 -18	17 -18	17 -18
200 Vis. No. 5½ Color Red Oil	9 -10	9 -10	10 -10½
300 Vis. No. 5½ Color Red Oil	10 -11	10 -11	11½-12
500 Vis. No. 6 Color Red Oil	12 -13	12 -13	12½-13½
750 Vis. No. 6 Color Red Oil	15 -16	15 -16	16 -17
CALIFORNIA (Viscosity at 100° F.)			
100 Vis. No. 2 color	9¼-10	9¼-10	9¼-10
100 Vis. No. 3 color	8 - 8½	8 - 8½	8 - 8½
200 Vis. No. 3 color	10 -10½	10 -10½	10 -10½
300 Vis. No. 3 color	11 -11½	11 -11½	11 -11½
450 Vis. No. 3½ color	13 -13½	13 -13½	13 -13½
550 Vis. No. 3½ color	15 -15½	15 -15½	15 -15½
600 Vis. No. 3½ color	15½-16	15½-16	15½-16
100 Vis. No. 5 color	7 - 7½	7 - 7½	7 - 7½
200 Vis. No. 5 color	9 - 9½	9 - 9½	9 - 9½
300 Vis. No. 5 color	9½-10	9½-10	9½-10
400 Vis. No. 6 color	11½-12	11½-12	11½-12
500 Vis. No. 6 color	12 -12½	12 -12¼	12 -12½
600 Vis. No. 6 color	12½-13	12½-13	12½-13
700 Vis. No. 7 color	14½-15	14½-15	14½-15

CYLINDER STOCKS

OKLAHOMA			
190-200 Vis. at 210° Bright Stock	31 -35	31 -35	31 -35
150-160 Vis. at 210° Bright Stock	27 -31	27 -31	27 -31
600 E Stock 140-150 Vis —210°	18 -20	18 -20	18 -20
600 Steam Refined Olive Green	8 -11	8 -11	8 -11
600 Steam Refined Dark Green	5½- 7½	5½- 7½	5½- 7½
Black Oil	5 - 6	5 - 6	5 - 6
PENNSYLVANIA (1-inch Immersion Test)			
600 Steam Refined	11 -11½	11 -11½	10½-11
650 Steam Refined	15½-16	15½-16	15 -16
600 Flash	20 -21	20 -21	-21
625 Flash	-30	-30	-31
600 Warren E	20 -20½	20 -20½	20 -20½
600 Oil City E	18½-19½	18½-19½	18½-19½
600 D Filtered	25½-26	25½-26	25½-26½
Cold Test Stocks (bright filtered)	37¾-38½	38¼-39	38¼-40
Cold Test Stock (dark filtered)	36 -37	36¼-37	36¼-38

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher.)

LONG RESIDUUM STOCKS

PENNSYLVANIA			
60-65 vis. @ 210, 440-450 flash No. 5½ color	-33	-33	-33
70-75 vis. @ 210, 450-455 flash No. 6 color	-34	-34	-34
80-85 vis. @ 210, 440-450 flash No. 7 color	-35	-35	-35
80-85 vis. @ 210, 450-460 flash No. 7-8 color	-36	-36	-36
80-85 vis. @ 210, 460-465 flash No. 7 color	36 -37	36 -37	36 -37
95-100 vis. @ 210, 490-495 flash No. 8 color	-38	-38	-38

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AMERICAN BRIDGE COMPANY

71 Broadway, New York, N. Y.

Manufacturers of STEEL STRUCTURES of all classes, particularly BRIDGES and BUILDINGS

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(*Barge Dept.*, Frick Building, Pittsburgh, Pa.)

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Steel Towers,—Fabricated Steel of all kinds

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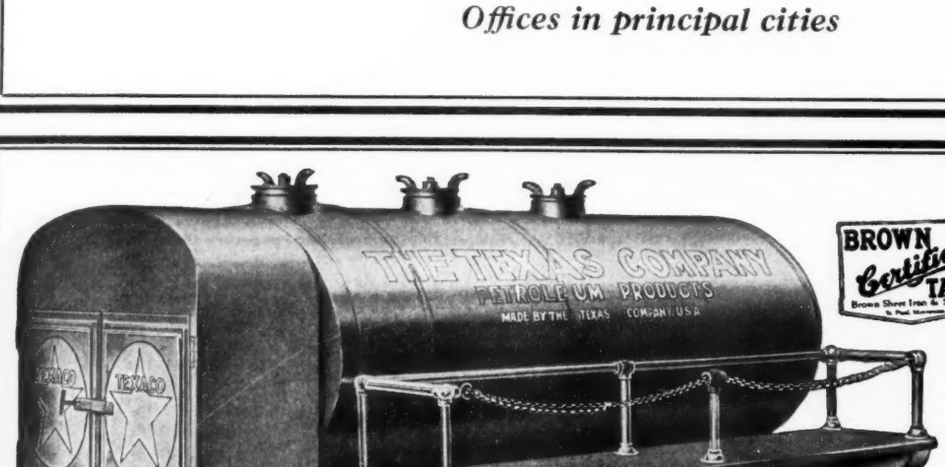

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We are interested in your tanks. Send your catalog and prices.

Make of Truck..... Year..... We operate..... (number) Tank Trucks.

Other equipment on which you may send prices .....

Name..... Address.....

Refinery Markets on Wax and Heavy Oil Products

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California and New England

WAX

PENNSYLVANIA	Prices Nov. 29	Prices Nov. 22	Prices Nov. 15
	(Per Pound, New York)		
122-124 White Crude Scale	4⅞- 5	4⅞- 5	- 5
124-126 White Crude Scale.	5 - 5⅛	5 - 5⅛	- 5⅛
OKLAHOMA			
124-126 White Crude Scale.	4⅛- 4¼	4¼- 4½	4⅜ - 4½
CALIFORNIA			
White Crude Scale.....	6 - 7	6 - 7	6 - 7

FUEL OIL

PENNSYLVANIA			
36-40 Fuel Oil.....	6¾- 7	- 6¾	6⅝- 6¾
30-34 Fuel Oil.....	- 6½	- 6½	6¼- 6½
28-30 Fuel Oil.....	6¾- 6½	6¾- 6½	6¼- 6½
OKLAHOMA			
38-40 Straw distillate.....	5¼- 5½	5¼- 5½	5¼- 5½
36-38 Straw distillate.....	5 - 5¼	5 - 5¼	5 - 5¼
32-36 Gas oil cracked (Gal.)	- 4¾	- 4¾	4⅝- 4¾
32-36 uncracked Gas oil, (Gal.)	4¾- 4⅜	4¾- 4⅜	4¾- 4⅜
28-30 Fuel oil (Bbl.).....	1.50 -1.60	1.50 -1.60	1.52½-1.57½
26-28 Fuel oil (Bbl.).....	1.35 -1.45	1.35 -1.45	1.40 -1.45
24-26 Fuel oil (Bbl.).....	1.27½-1.32½	1.30 -1.32½	1.30 -1.32½
22-26 Fuel oil (Bbl.).....	1.22½-1.27½	1.25 -1.30	1.25 -1.30
18-22 Fuel oil (Bbl.).....	1.20 -1.25	1.22½-1.25	1.20 -1.25
16-18 Fuel oil (Bbl.).....	-1.20	-1.20	-1.20
14-16 Fuel oil (Bbl.).....	1.17½-1.20	1.17½-1.20	1.17½-1.20
KANSAS*			
38-40 straw distillate.....	5¾- 6	5¾- 6	5¾- 6
36-38 straw distillate.....	5⅝- 5¾	5⅝- 5¾	5⅝- 5¾
32-36 Gas Oil.....	- 4½	- 4½	- 4½
18-22 Fuel Oil.....	1.25 -1.30	1.25 -1.30	1.25 -1.35
24-26 Fuel Oil.....	1.45 -1.55	1.45 -1.55	1.50 -1.60
*F. O. B. refinery, Kansas destination.			
NORTH TEXAS			
38-40 Straw Distillate.....	5 - 5¼	5 - 5¼	5⅛- 5¼
32-36 Gas Oil (Gal.) cracked	4⅛- 4¼	- 4⅛	4 - 4⅛
32-36 uncracked gas oil....	- 4¼	4⅛- 4¼	- 4⅛
24-26 Fuel per (Bbl.).....	1.55 -1.57½	1.50 -1.55	1.50-1.55
GULF COASTAL			
Fuel.....	1.55 -1.60	1.55 -1.60	1.55 -1.60
Gas Oil.....	5¼- 5½	5¼- 5½	5¼- 5½

NORTH LOUISIANA	Prices Nov. 29	Prices Nov. 22	Prices Nov. 15
32-36 Gas oil, cracked (Gal.)	4⅜- 4½	- 4⅜	4¾- 4⅜
32-36 Gas oil, uncracked (Gal.)	4½- 4⅝	- 4½	- 4⅜
16-20 Fuel Oil (Bbl.).....	1.17½-1.20	1.15 -1.20	1.15 -1.20
ARKANSAS			
30-34 Gas oil.....	4 - 4¼	4 - 4¼	4 - 4¼
32-36 Gas oil.....	4¼- 4½	4¼- 4½	4¼- 4½
Smackover Crude Fuel....	1.22½-1.27½	1.22½-1.27½	1.22½-1.27½
CALIFORNIA*			
14-18 Fuel Oil (Bbl.).....	80 -1.00	80 -1.00	85 -1.00
14-18 Bunker Oil (Bbl.)....	80 -1.00	80 -1.00	85 -1.00
30-34 Gas Oil (Bbl.).....	1.30 -1.35	1.30 -1.35	1.30 -1.35
27 + Diesel Oil (Bbl.)....	-1.15	-1.15	-1.15
*(San Joaquin Valley, San Franciso 4c per bbl. more.)			
NEW ENGLAND			
(F. O. B. Boston and Fall River)			
30-32 Gas Oil (Gal.).....	6 - 6¼	- 6	- 6
Fuel Oil (Bunker C) Bbl..	-1.83	-1.84	-1.87½

PETROLATUMS

PENNSYLVANIA			
Snow White.....	8½- 9	8½- 9	8½- 9
Lily White.....	7½- 8	7½- 8	7½- 8
Cream White.....	- 6½	- 6½	- 6½
Light Amber.....	- 5½	- 5½	- 5½
Amber.....	5¼- 5½	5¼- 5½	5¼- 5½
Red.....	- 3	- 3	- 3
Green —5.....	1¾- 2	1¾- 2	1¾- 2

PETROLEUM COKE

OKLAHOMA

(Per ton in car lots)

Lump.....	$5-$6	$5-$6	$5-$6
Breeze.....	2-2.25	2-2.25	2-2.25
Still Run.....	$.25-$.50	$.25-$.50	$.25-$.50

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

(Continued from page 113)

Scarcity of Tankers Holds Up California Gasoline Prices

Distillates also remained steady this week with demand characterized as "fairly good." One refinery salesmanager returned yesterday from a trip into the consuming territory for the purpose of making a few distillate contracts with jobbers. He made a careful survey of the field and declared upon his return that in his opinion prices would hold about where they are now throughout the remainder of the season. The spot market on 38-40 straw distillate in Oklahoma has been 5¼ to 5½ cents.

The market on distillates in Texas has shown minor fluctuations several times this season, due to the fact that very few plants are making material, but the bulk of the production has been moving right along at 5 cents or better.

Gas oil in practically every field has been in better demand this week. One marketer early in the week bought 25 cars of 32-36 gas oil at 4 cents, but practically all other sources reported material hard to obtain at even 4⅛ cents, with bulk of material moving at 4¼ cents.

Friday and today an unusually good demand developed for zero cold test gas oil, and one marketer said he was being quoted 4½ cents for that grade of material.

LOS ANGELES, Nov. 29

THERE were practically no transactions in marketing circles the past week, due to the holiday season and scarcity of tankers and as far as is known, there were no price changes.

The one outstanding development in marketing circles was the closing of a contract by the Sun Oil Co. calling for the shipment of approximately 35,000,000 gallons of gasoline from the West Coast during the coming year. The contract was made with the Shell Co. and the gasoline is to be moved in Sun tankers, mostly to Florida. It is understood the price is based largely on prices prevailing in Florida, and subject to change with any changes in that state.

It is also generally understood that a new contract has been closed by the Union Oil Co. with the Atlantic Refining Co., calling for shipment of various products to the East Coast over a period. This report could not be verified in detail, either as to product to be moved or the price basis, but it is supposed that the price will be varied according to the ups and downs of prices for crude and other products from month to month on the East Coast. Most California contracts are made on this basis.

California U. S. motor gasoline is still quoted around 8½ to 9 cents a gallon, and it is doubted if cargoes could be secured at a price less than 8½ cents. The scarcity of tankers is largely dominating conditions. The few tankers available are asking one dollar for dirty bottoms through Canal to East Coast points with clean bottoms ten cents higher.

Not a tanker left Los Angeles Harbor for two days this week, which is very unusual. Several times in the past year only one or two tankers would depart, but for a day to pass without even one tanker departing is extremely unusual.

Natural gasoline is fairly firm, with the supply increasing, but demand is also greater, as this product is largely used for the new winter gasolines.

Market Section

High Test Gasoline and Kerosene Strong in Chicago Market

CHICAGO, Nov. 27

HIGH test gasolines and burning oils continued to be in good demand over the week in the Chicago resale market. Kerosenes for domestic consumption were in little demand while low gravity fuels were fairly active. Export buying of high test gasolines and kerosene this week strengthened these markets, several refiners reported.

For the first time in several weeks 58-60 U. S. Motor gasoline demand was better. Several refiners and carload marketers said there was a better demand from jobbers Friday and Saturday. Other sellers, however, reported there was no change in demand late this week over that of mid-week. One refiner, who had an increased demand especially for 10- to 15-car orders, said he believed jobbers had overcome fear of tank wagon reductions which they expected to follow crude reductions in first half of November and were coming into the market for material.

Cold weather with some rain and snow has prevailed in this territory over the week and helped the burning oil and high test gasoline market, the trade reported. At close of business today the trade said high test gasolines were in better demand than before the Thanksgiving holiday, while burning oil demand was steady.

The Thanksgiving holiday failed to slow up the Chicago market. In addition to the annual turkey feast Chicago had the Army and Navy academies here for the football game today, but this also had no effect on the market.

Prices on all commodities excepting 58-60 U. S. Motor gasoline and 41-43 w.w. kerosene were steady over the week. The 58-60 U. S. Motor gasoline price got below 9 cents Tuesday when sales were made at 8⅞ cents and a few at 8¾ cents. Today U. S. Motor gasoline returned to 9 cents with one refiner selling at 8⅞ cents.

The high test gasolines were unchanged with 60-62, 400 e.p. material selling at 10 to 10¼ cents; and 64-66, 375 e. p. gasoline at 10½ to 10¾ cents. Dark 32-36 gas oil was 4¼ to 4⅜ cents, straw oil at 4½ to 4⅝ cents, and 38-40 straw distillate was unchanged at 5½ cents and 36-38 straw distillate 5¼ cents. The 18-22 fuel oil was steady at $1.22½ to $1.27½, and 24-26 grade at $1.30 to $1.35. Smackover was in good demand, especially in Chicago, at $1.27½ to $1.30.

Frequent temperature changes are predicted for next week, with more or less precipitation throughout this district, especially in the northern portion where the fall will be in the form of snow.

Motor Benzol Demand Increases

NEW YORK, Nov. 29.—Demand for motor benzol has improved a little the last few days but production, although declining, is still heavy and stocks on hand are large. The asking price for spot motor benzol in tank cars at the ovens is 23 cents a gallon. Leading marketers report a good, steady shipment against old contracts but reports a dearth of new buying orders.

With the cold weather at hand motor fuel blenders are not inclined to purchase much motor benzol. Demand for pure and 90 per cent benzol is gradually falling off but prices are steady. Export inquiries for motor benzol have been more numerous but no sales were reported.

EUREKA, ILL.—Tazwood Oil Co., which has been buying its supplies from the Pure Oil Co., Chicago, for a year, recently took on a franchise for Purol gasoline and Tiolene motor oil, C. M. Steider, of the Tazwood company, said.

PLATT'S
OILGRAM
Petroleum Markets-Every Day

1,509 Telegrams in November on Price-changes

DURING the past month, PLATT'S OILGRAM sent 1,509 wires on tank-wagon and crude price - changes to subscribers.

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Week's Price Changes Tank Wagon Markets

Gasoline Changes

Standard of Kentucky—T.w. and s.s prices gasoline reduced 2 cents, Alabama, Georgia and Florida to meet competition, and Mississippi reduced 1 cent, **Nov. 27.** Kentucky was unchanged.

Continental Oil—T.w. and s.s. prices gasoline reduced 1 cent generally in Colorado, Wyoming, New Mexico and Montana, with a few exceptions, **Nov. 26.** Grand Junction, Colo., was cut 1½ cents. Butte, Mont., gasoline was unchanged.

Kerosene Changes

Continental Oil—Kerosene reduced ½ cent, Grand Junction, to 19.5 cents at tank wagon, **Nov. 26.**

Two Tank Wagon Prices From The Texas Co.

Staff Special

CHICAGO, Nov. 27.—Information comes from Wisconsin, that The Texas Co., has adopted a general policy throughout the Minneapolis division, of giving resale agents 3 cents off the service station price as a marginal differential. This margin, it is emphasized, does not change the tank wagon price as it affects farmers or other consumers who buy from tank wagon, but it is only an additional cent spread for the re-sale agent.

Since early last spring when The Texas Co. started selling a high-test gasoline at the competitive price of Red Crown (and other brands having substantially U. S. Motor specifications) it abandoned the Q. D. A. altogether. In that respect The Texas Co. has had an Independent price structure all this season. Now, in the Minneapolis division, which includes Wisconsin, the company has discriminated between the tank wagon price for re-sale and the tank wagon price to consumers, giving the re-selling agent 1 cent advantage.

Local authorities of The Texas Co. say the policy has not been adopted in the Chicago division and they are not sure that it will be.

Gulf Coast Lubes Steady

HOUSTON, Nov. 27.—Steady movements of oils are reported by Gulf Coastal lubricant manufacturers at unchanged prices. A reduction of approximately 1 cent a gallon on most grades of red oils was reported in these columns last week. Stocks of finished products on hand are adequate, but manufacturers report no undue accumulation.

FLETCHER, OKLA.—A filling station has just been completed here by the Magnolia Petroleum Co.

Tank Wagon, Service Station Markets for Gasoline and Kerosene In United States Territories and Canada

These Prices in Effect Nov. 29, 1926

S. O. NEW JERSEY TERRITORY

	Gasoline T.W.	Tax	Total T.W.	S.S.	Oil T.W.
Atlantic City, N. J.	18	0	18	*	16
Newark, N. J.	18	0	18	20	16
Annapolis, Md.	18	2	20	*	16
Baltimore, Md.	18	2	20	23	16
Cumberland, Md.	18	2	20	23	16
Washington, D. C.	18	2	20	23	16
Danville, Va.	18	4½	22.5	*	16
Norfolk, Va.	18	4½	22.5	25.5	16
Richmond, Va.	18	4½	22.5	25.5	16
Roanoke, Va.	18	4½	22.5	25.5	16
Petersburg, Va.	18	4½	22.5	*	16
Williamsburg, Va.	18	4½	22.5	*	16
Charleston, W. Va.	18	3½	21.5	24.5	16
Clarksburg, W. Va.	18	3½	21.5	24.5	16
Keyser, W. Va.	18	3½	21.5	*	16
Parkersburg, W. Va.	18	3½	21.5	24.5	16
Wheeling, W. Va.	18	3½	21.5	24.5	16
Charlotte, N. C.	19	4	23	26	16
Hickory, N. C.	19	4	23	*	16
High Point, N. C.	19	4	23	*	16
Mt. Airy, N. C.	19	4	23	*	16
Salisbury, N. C.	19	4	23	*	16
Charleston, S. C.	19	5	24	27	16
Columbia, S. C.	19	5	24	27	16

*Dealers set own prices. S. O. New Jersey does not operate station.

S. O. NEW YORK

Due to local price conditions at many points in S. O. New York territory, actual prices on both gasoline and kerosene are being made at under the posted tank wagon prices published below.

*New York City	21	0	21	25	18
Albany, N. Y.	17	0	17	19	18
Buffalo, N. Y.	17	0	17	20	18
Rochester, N. Y.	17	0	17	21	16
Syracuse, N. Y.	17	0	17	19	18
Boston, Mass.	19	0	19	21	18
Augusta, Me.	21	3	24	26	18
Manchester, N. H.	21	2	23	25	18
Burlington, Vt.	20	2	22	24	18

*In steel barrels.

ATLANTIC REFINING

Pittsburgh, Pa.	19	*	19	*24	16
Philadelphia, Pa.	19	*	19	*24	16
Allentown, Pa.	19	*	19	*24	16
Erie, Pa.	†17	*	17	*22	14
Scranton, Pa.	19	*	19	*24	16
Altoona, Pa.	19	*	19	*24	16
Dover, Del.	19	2	21	24	16
Wilmington, Del.	19	2	21	24	16
Providence, R. I.	19	1	20	22	18
Boston, Mass.	19	0	19	21	18
Springfield, Mass.	19	0	19	21	18
Worcester, Mass.	19	0	19	21	18
Hartford, Conn.	19	2	21	24	17
New Haven, Conn.	19	2	21	24	18

*2-cent state tax is collected by retail dealer and paid by him directly to state.

†Most sales are being made at 17c at tank wagon but 18c is nominal price.

S. O. KENTUCKY

Lexington, Ky.	18	5	23	26	17
Louisville, Ky.	17	5	22	25	17
Covington, Ky.	18	5	23	26	17
Clarksdale, Miss.	16	4	20	23	14.5
Gulfport, Miss.	††17.5	4	††21.5	24.5	15
Jackson, Miss.	16	4	20	23	15.5
Natchez, Miss.	15.5	4	19.5	22.5	15
Vicksburg, Miss.	15.5	4	19.5	22.5	15
Birmingham, Ala.	16	2	18	21	17.5
Mobile, Ala.	15	2	17	20	16
Montgomery, Ala.	*17	2	19	22	*18.5
Atlanta, Ga.	†14	3½	18	21	18
Augusta, Ga.	†14	3½	18	21	17
Macon, Ga.	†14	3½	18	21	18
Savannah, Ga.	†12	3½	16	18	16
Jacksonville, Fla.	12	4	16	19	16
Miami, Fla.	14	4	18	21	17.5
Tampa, Fla.	12	4	16	19	16
Pensacola, Fla.	**13	4	**17	20	16.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia has ½ cent per gal. inspection fee on gasoline which is deducted as well as the state gasoline road tax of 3½ cents, to get the actual net tank wagon market to dealer.

**Both tank wagon prices include 1c city tax at Pensacola, which went into effect Oct. 15, 1926.

††Both tank wagon prices at Gulfport include special Sea Wall tax of 2c.

S. O. INDIANA

	Gasoline T.W.	Tax	Total T.W.	S.S.	Oil T.W.
Chicago, Ill.	†18	0	†18	20	13.5
Decatur, Ill.	18.2	0	18.2	20.2	14
E. St. Louis, Ill.	17.1	0	17.1	19.35	13.1
Joliet, Ill.	18.4	0	18.4	20.4	14.2
Peoria, Ill.	18.2	0	18.2	20.2	14
Quincy, Ill.	18.2	0	18.2	20.2	13.8
Indianapolis, Ind.	18.2	3	21.2	23.2	14.2
Evansville, Ind.	18	3	21	23	14*
South Bend, Ind.	18.4	3	21.4	23.4	14.4
Detroit, Mich.	18.8	2	20.8	22.8	14.7
Grand Rapids, Mich.	18.7	2	20.7	22.7	14.6
Saginaw, Mich.	18.9	2	20.9	22.9	14.8
Green Bay, Wis.	18.6	2	20.6	22.6	14.3
Madison, Wis.	18.3	2	20.3	22.3	14
Milwaukee, Wis.	18.1	2	20.1	22.1	13.8
La Crosse, Wis.	19.2	2	21.2	23.2	14.9
Minneapolis, Minn.	15.2	2	17.2	19.2	15.1
Duluth, Minn.	19.5	2	21.5	23.5	15.1
Mankato, Minn.	19.1	2	21.1	23.1	14.9
Des Moines, Iowa.	16	2	18	20	14.4
Davenport, Iowa.	18.5	2	20.5	22.5	14.4
Sioux City, Iowa.	16.9	2	18.9	20.9	14
Mason City, Ia.	18.5	2	20.5	22.5	14.4
St. Louis, Mo.	*17.6	2	19.6	21.9	13.5
Kansas City, Mo.	††18.9	2	20.9	22.9	12.8
St. Joseph, Mo.	††18.5	2	20.5	22.5	13.4
Fargo, N. D.	20.9	2	22.9	24.9	17.1
Grand Forks, N. D.	20	2	22	24	17.4
Minot, N. D.	20.9	2	22.9	24.9	17.1
Pierre, S. D.	19.5	3	22.5	24.5	15 6
Huron, S. D.	19.5	3	22.5	24.5	15.6
Wichita, Kans.	**16.8	2	18.8	20.8	13.3
Bartlesville, Okla.	16.8	3	19.8	21.8	13.3

†Dumps of 100 or more gallons at 17c per gallon

*Includes city tax of ½c.

††Includes city tax of 1c.

**Dumps of 50 gallons or more in Kansas, 1c discount per gallon.

S. O. NEBRASKA

Crawford, Neb.	19	2	21	*	14.75
Omaha, Neb.	18.25	2	20.25	22.25	14
McCook	19.75	2	21.75	23.75	15.5
Norfolk	17	2	19	21	14.5
North Platte	19.75	2	21.75	23.75	15.25
Scottsbluff	19.25	2	21.25	23.25	14.75

*Standard has no service station here.

CONTINENTAL OIL

Denver, Colo.	18	2	20	21	16
Pueblo, Colo.	18	2	20	22	16
Grand Junction, Colo.	21.5	2	23.5	25.5	19.5
Casper, Wyo.	18	2½	20.5	22.5	14.5
Cheyenne, Wyo.	19	2½	21.5	23.5	16
Butte, Mont.	19	2	21	21	19.5
Helena, Mont.	22	2	24	26	19.5
Salt Lake City, Utah.	20.5	3½	24	26	18
Boise, Ida.	22	3	25	27	20
Twin Falls, Ida.	22	3	25	27	20
Albuquerque, N. M.	20	3	23	26	18.5

S. O. CALIFORNIA

Phoenix, Ariz.	19	3	22	25	21.5
Los Angeles, Cal.	11.5	2	13.5	16.5	15.5
Fresno, Cal.	12.5	2	14.5	17.5	16.5
San Francisco, Cal.	13	2	15	18	15.5
Reno, Nev.	16.5	4	20.5	23.5	19
Portland, Ore.	13	3	16	19	16.5
Seattle, Wash.	13	2	15	18	16.5
Spokane, Wash.	17	2	19	22	20.5
Tacoma, Wash.	13	2	15	18	16.5

S. O. LOUISIANA

Little Rock, Ark.	17	4	21	24	16
Alexandria, La.	17	2	19	22	17
Baton Rouge, La.	16	2	18	21	15.5
Lake Charles, La.	17.5	2	19.5	22.5	17
New Orleans, La.	*16.5	2	18.5	21.5	16
Shreveport, La.	16	2	18	21	16
Lafayette, La.	17	2	19	22	16.5
Bristol, Tenn.	20	3	23	26	17.5
Chattanooga, Tenn.	19.5	3	22.5	25.5	17.5
Knoxville, Tenn.	19.5	3	22.5	25.5	18
Nashville, Tenn.	18	3	21	24	18
Memphis, Tenn.	17	3	20	23	17

*Includes 1c city tax on gasoline and kerosene.

S. O. OHIO

	Gasoline T.W.	Tax	Total T.W.	S.S.	Oil T.W.
All Ohio points	19	2	21	23	17

MAGNOLIA PETROLEUM

Muskogee, Okla.	16	3	19	22	13
Oklahoma City	15	3	18	21	13
Tulsa, Okla.	16	3	19	22	13
Fort Smith, Ark.	17	4	21	24	14.5
Little Rock, Ark.	17	4	21	24	14.5
Texarkana, Ark.	19	4	*23	*23	15
Dallas, Tex.	16	1	**17	17	15
El Paso, Tex.	19	1	**20	20	16
Fort Worth, Tex.	16	1	**17	17	15
Houston, Tex.	18	1	**19	19	15
San Antonio, Tex.	18	1	**19	19	14

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city the 4c state tax applies.

**Magnolia is maintaining only one price schedule in Texas—its retail schedule. This is in keeping with its contract, effective May 5, which allows the dealer 3c off the retail price.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changes)

	Oleum Spirits	V.M.& P Naphtha	Cleaner Naphtha
Chicago	21	23	21
Detroit	22.2	24.7	22.7
Kansas City	21.2	23.2	21.2
Milwaukee	21.2	*25.7	*23.7
Minneapolis	*24.5	*27	*25
St. Louis	20.4	22.9	22.2
New York	...	22	....

*Includes 2c state tax.

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

ONTARIO

	Gasoline T.W.	Tax	Total T.W.	S.S.	Oil T.W.
Toronto	24.5	3	27.5	31	24
Ottawa	24.5	3	27.5	31	24
Cochrane	28.5	3	31.5	40	29
Ft. William	24.5	3	27.5	32	26.5

MANITOBA

Winnipeg	27.5	3	30.5	34	26.5

SASKATCHEWAN

Regina	30.5	0	30.5	33	29.5

ALBERTA

Edmonton	29.5	2	31.5	35	28.5
Calgary	27.5	2	29.5	33	26.5

BRITISH COLUMBIA

Vancouver	21	3	24	28	23

QUEBEC

Montreal	24.5	3	27.5	31	24
Quebec City	26.5	3	29.5	33	26
Three Rivers	26.5	3	29.5	33	26

NEW BRUNSWICK

St. John	27.5	3	30.5	35	27
Moncton	27.5	3	30.5	35	27

NOVA SCOTIA

Halifax	27.5	3	30.5	35	27
Sydney	29.5	3	32.5	37	29

PRINCE EDWARD ISLAND

Charlottetown	27.5	3	30.5	34	27

Note: In districts surrounding these points 1c additional is added to city price.

Export Market Tone is Improving Though Sales are Small

By Special Correspondent
NEW YORK, Nov. 29

ALTHOUGH export sales were small last week, European buyers were more interested in gasoline, kerosene and gas oil and the general situation is more promising than it has been in several weeks. French buyers are negotiating for several bulk cargoes of gasoline, kerosene and gas oil. Prices of gasoline were firmer at the Gulf, but easy along the Atlantic Seaboard.

Bulk kerosene was ½ cent a gallon cheaper on the Atlantic Seaboard. Zero cold test lubricants were a little firmer because of several bulk cargo sales early this month. Bunker oil is gaining strength. Waxes are steady.

Export Gasoline—New York

The New York gasoline export market has been quiet. There was an inquiry from the United Kingdom for 45,000 barrels of U. S. Motor and 64-66 gravity gasoline for December shipment. Refiners were asking 11½ cents a gallon, in bulk at the refineries for U. S. Motor but it was persistently reported that business had been transacted at 11¼ cents.

Cased gasoline demand was more active. A South American buyer purchased 25,000 cases of U. S. Motor and 64-66, 375 end point for December shipment. A Japanese buyer was negotiating for 30,000 cases of U. S. Motor and 64-66 for December-January shipment.

Export Gasoline—Gulf Ports

Gasoline was firmer at the Gulf ports. The upward price tendency brought forth several inquiries for bulk cargoes. Three French buyers were in the market. One was inquiring for 50,000 barrels of U. S. Motor and 64-66 gasoline, and prime and water white kerosene. Another was negotiating for 45,000 barrels of water white kerosene, U. S. Motor and 64-66 gasoline, and light gas oil for January-December shipment. It was rumored late in the week that a large French buyer had bought 45,000 barrels of U. S. Motor at 10½ cents, 64-66 gasoline at 12 cents, prime white kerosene at 8 cents, and water white kerosene at 9½ cents a gallon for January-December shipment from a leading Independent refiner.

Gulf refiners are firmer in their ideas. Saturday's gasoline prices were: U. S. Motor, 10½ cents; 60-62, 400 e. p., 11¼ cents; 61-63, 390 e. p., 11½ cents, and 64-66, 375 e. p., 12 cents. One or two refiners were asking 12¼ cents for the last.

Cased gasoline demand was spasmodic. A Near Eastern buyer purchased 25,000 cases of U. S. Motor and 64-66 for nearby shipment.

Domestic Gasoline—New York

Atlantic Seaboard refiners reported a falling off in the domestic gasoline demand last week. The price tendency was downward. Although marketers claim it costs 11¼ cents a gallon to lay down California gasoline in cargo lots at New York, business in tank car lots is reported at 11¼ cents. Most refiners were asking 11½ cents in tank cars at refineries and 12½ cents delivered. There were more rumors of an impending cut in New York tank wagon prices.

Domestic Gasoline—Gulf Ports

Jobbing demand for gasoline in the Gulf markets was spasmodic. Large jobbers were content with purchasing just enough gasoline to take care of immediate demand. Refiners were asking 10½ cents a gallon for U. S. Motor gasoline in tank cars at the refineries. Tank wagon prices were unchanged.

Export Kerosene—New York

Export demand for kerosene increased a little. It was rumored that a leading refiner had sold 40,000 barrels of prime and water white kerosene for nearby shipment to Scandinavia. The prices were not divulged. Water white kerosene was quoted at 10 cents a gallon at refineries and prime white was available at 9¾ cents, a decline of ½ cent for the week. Cased kerosene was more active in lots of 200 to 1000 cases. A leading Independent refiner sold 20,000 cases for December shipment to the Levant. Another large Independent refiner sold 25,000 cases for nearby shipment to China.

Export Kerosene—Gulf Ports

Regardless of the weakness in the Atlantic Seaboard kerosene market, Gulf prices were a trifle firmer. French buyers have been negotiating for part cargoes of kerosene, and with domestic consumption increasing refiners are not inclined to shade prices. Prime white was quoted at 7⅞ to 8 cents a gallon at the beginning of the week but on Saturday almost all were asking 8 cents. Water white was 9¼ to 9½ cents early in the week and 9½ cents Saturday.

Cased kerosene demand was more active. A large Australian buyer is reported to have purchased 30,000 cases of prime and water white for January shipment. Prime white was quoted at $1.70 a case and water white at $1.80 a case in cargo lots.

Domestic Kerosene

Domestic consumption of kerosene has gained steadily but most large domestic buyers have been content with purchasing for nearby requirements. Atlantic Seaboard refiners were asking 9¾ cents a gallon for prime white and 10 to 10¼ cents a gallon for water white in bulk at refineries. In tank cars delivered to the trade water white was 11 to 11¼ cents and prime white 10¾ cents a gallon. Tank wagon prices were unchanged. In the Gulf region water white kerosene was steady but quiet at 9½ cents a gallon in bulk at refineries.

Bunker Oil—New York

Demand for grade C bunker oil has improved in the last few days. The price was firmly established at $1.75 a barrel f.o.b. refinery and $1.81½ a barrel f.a.s. New York harbor. It is rumored the price will be advanced shortly. Diesel oil is firm at $2.50 a barrel at refineries. There is a heavy contract movement in both of these oils and stocks are somewhat lighter than a month ago. Export buying was light and spasmodic.

Bunker Oil—Gulf Ports

A large Independent refiner is reported to have sold 40,000 barrels of grade C bunker oil for export, December shipment, but details were withheld. The Gulf bunker oil market was firm at $1.60 a barrel at New Orleans for bunkering and $1.45 for cargoes. At

Exports from Tampico District

Company	Sept.	Oct.
Transcontinental Petroleum Co., (Standard of New Jersey)	973,351	1,275,648
Pan American Eastern Oil Co.	2,153,183	1,834,734
Mexican Eagle Oil Co., (El Aguila)	928,078	1,158,076
Cia. Mexicana Holandesa "La Corona"	743,982	619,270
The Texas Co. of Mexico, S. A.	172,262	59,978
Mexican Gulf Oil Co.	230,324	134,591
Sinclair Mexican Companies	497,221	272,976
East Coast Oil Co. of Mexico, S. A., (Southern Pacific)	48,964	134,790
Mexican Oil Products Co.	31,010	31,745
La Espuela Oil Co.	37,710	.....
Pierce Oil Corp.	70,707	65,161
Mexican Atlas Oil Co.	47,747	48,457
Moctezuma Terminal	48,361	31,771
Panuco Boston Oil Co.	.....	98,352
New England Fuel Oil Co.	.....	200,457
Totals	5,982,900	5,965,986

Tampico grade C bunker oil was quoted at $1.55 for bunkering, including taxes, and $1.45 a barrel for cargoes also including taxes. Heavy Panuco crude oil was dull but firmly maintained at $1.25 a barrel, f.o.b. Tampico, taxes to be added.

Gas Oil—New York

The New York gas oil market was sluggish. Buyers as a rule showed little interest. Stocks of gas oil are growing as less is being cracked. New York refiners were offering 36-40 freely at 6¼ cents a gallon and 28-34 at 5¾ cents. Domestic demand has failed to improve.

Gas Oil—Gulf Ports

Prices were easier, due to the slump in both export and domestic demand. Leading refiners were quoting 32 plus dark gas oil at 4⅞ cents a gallon and 26-28 red transparent at 5 cents. It was rumored that the 4⅞ cents price could have been shaded on a firm bid. Stocks are large. Competition among refiners is becoming keener. Europeans are showing little interest at these prices.

Lubricants—New York

Pennsylvania lubricants showed little life last week. Prices did not show any marked fluctuations regardless of the recent slash in crude oil. Buying is spasmodic and both domestic and export buyers appeared content to purchasing just enough to meet immediate needs. Pennsylvania 600 steam refined cylinder oil in barrels New York was easy at 18 cents a gallon. Neutral oils were largely neglected towards the end of the week.

Lubricants—Gulf Ports

Sales of several bulk cargoes of zero cold test lubricants early this month have improved the situation. Stocks are no longer heavy. Refiners believe the placing of orders for one or two good sized cargoes would bring higher prices. Domestic consumption of lubricating oils is gaining and the tendency of prices is upwards. Mid-Continent cylinder stocks were dull.

Waxes—New York

Paraffin wax was sluggish. Prices remained easy but no important changes occurred. Lower freight rates to England brought about by the termination of the British coal strike difficulties have resulted in numerous inquiries from the United Kingdom for both white crude scale and fully refined waxes. Stocks of waxes are large but domestic consumption is gaining.

Waxes—Gulf Ports

Gulf market for paraffin wax was easier. Export demand failed to improve and offerings were large and at slight concessions from the previous week's prices. Domestic buying is still disappointing and competition among sellers is keen.

Petrolatums

This market has shown a firmer tendency the last few days. Export demand for the more expensive grades is more active. Domestic consumption is gaining.

Complete Export Markets

New York Export Market

GASOLINE	Nov. 29	Nov. 22
U. S. Motor Tank cars Ref.	11½-11¾	11½-11¾
U. S. Motor cases	27.15	-27.15
California grade U. S. Motor F. O. B. N. Y. Cargoes	11¼	-11¼
KEROSENE		
43-45-150W.W.Tank cars Ref.	10	-10½
43-45-150W.W.Cases	19.65	-19.65
42-44-110S.W.Cases	19.15	-19.15
GAS OIL		
36-40, Bulk Refinery	-06¼	-06¼
28-34, Bulk Refinery	-05¾	-05¾
MEXICAN BUNKER OIL		
Grade C, f. o. b. ref. Bulk	-1.75	-1.75
Diesel Oil f. o. b. ref. Bulk	-2.50	-2.50

LUBRICATING OILS

The following prices are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS (Bbls.)		
1 inch Immersion Test; All Penna. Products		
Filtered D 600	27	-27
Filtered E 600	26	-26
Unfiltered 600 s. r.	18	-18
Unfiltered 650 s. r.	23½	-23½
600 flash s. r.	25	-25
650 Flash	34	-34
RED PARAFFIN (Bbls.) (Viscosity at 70)		
300 vis. No. 5 color	21	-21
250 vis. No. 5 color	20	-20
High Viscosity... No. 5 color	25	-25
NEUTRAL OILS (Bbls.) (Viscosity at 70)		
200 vis. at F.Pale. No. 3 color	-31	-31
180 Pale. No. 3 color	-29	-29
150 Pale. No. 3 color	-24½	-24½
BLACK OIL (Bbls.)		
25-30 cold test	13½	-13½
15 cold test	14½	-14½

MEDICINAL OILS
(Includes Price of Drums)
(Penna. Stocks)

	Nov. 29	Nov. 22
Domestic 875-885 s. g.	- .85	- .85
Domestic 865-.870 s. g.	.75- .80	.75- .80
Russian 885-.890 s. g. 325-330 vis.	1.00-1.10	1.00-1.10

WAXES
(Penna. Stocks)
(In Cents per Pound, F. A. S. Carload Lots)

WHITE CRUDE SCALE		
122-124 A. m. p.	-4.90	-4.90
124-126 A. m. p.	- .05	- .05
MATCH		
105-108 A. m. p.	-05¾	-05¾
FULLY REFINED		
120-122 A. m. p.	-05¾	-05¾
123-125 A. m. p. Philadelphia.	-05¾	-05¾
125-127 A. m. p.	-05¾	-05¾
128-130 A. m. p.	-05⅞	-05⅞
130-132 A. m. p.	-06⅛	-06⅛
133-135 A. m. p.	-06⅛	-06⅛
135-137 A. m. p.	-06¾	-06¾
YELLOW CRUDE SCALE		
124-126 A. m. p.	-4.90	-4.90

PETROLATUMS
(Penna. Stocks)
Per Pound

Dark Green	02½	02½
Veterinary	03	03
Light Amber	03¾	03¾
Dark Amber	03½	03½
Cream	06½	06½
Lily White	08½	08½
Snow White	09¾	09¾

Gulf Export Market

GASOLINE
F. O. B. Seaboard
(Shipments of 20,000 Bbls. and over)

	Nov. 29	Nov. 22
U. S. Motor, Bulk	-10½	-.10½
60-62 400 e. p. Bulk	-11¼	-.11¼
61-63-390 e. p. Bulk	-11½	-.11½
64-66-375 e. p. Bulk	-12	-.12
U. S. Motor, Cases (cargo lots.	2.05	2.05
64-66 Cases (cargo lots)	2.25	2.25
KEROSENE		
Water White, 43-45 bulk	09½	-09½
Prime White, 41-43 Bulk	08	-08
Water White, cases (cargo lots)	1.85	1.85
Prime White, cases (cargo lots)	1.75	1.70
DOMESTIC GAS AND BUNKER OIL		
26-28, gravity, bulk*	05	-05½
32 plus, bulk, Dark	04⅞	-05
Grade C, Bunker oil	1.60	-1.60
Cargoes	1.45	-1.45

*Transparent through neck of a 4 oz. bottle

MEXICAN CRUDE AND BUNKER OILS
F. O. B. Steamer Tampico

Heavy, Panuco crude Taxes to be added	1.25	-1.25
Grade C, Bunker oil Taxes paid cargoes	nominal	nominal
Grade C, Bunker oil, F. O. B. Tampico, For Bunkering Purposes, taxes paid	1.55	-1.55

SOUTH TEXAS
(Viscosity at 100° F; cold test 0)
(Tanker, F. O. B. Houston)

*LUBRICATING OILS	Nov. 29	Nov. 22
100 Vis. No. 2 Unfiltered Pale.	08¼	08¼
150 Vis. No. 2½ Unfiltered Pale	10¼	10¼
200 Vis. No. 3 Unfiltered Pale.	11	11
300 Vis. No. 3 Unfiltered Pale.	12½	12½
500 Vis. No. 3½ Unfiltered Pale	14	14
200 Vis. No. 5½ Red Oil	10¼	10¼
300 Vis. No. 5½ Red Oil	10¾	10¾
500 Vis. No. 6 Red Oil	11½	11½
800 Vis. No. 6 Red Oil	16	16

*These prices are entirely nominal owing to wide fluctuations.

Pacific Export Market

(Cargo lots quotations at seaboard, Los Angeles Gravity test on A.P.I. scale

	Nov. 29	Nov. 22
Gasoline, U. S. Motor— 54°-56°	8¾- 9	08½- 9
Gasoline, U. S. Motor— blends and special cuts	9¼-10	9¼-10
Gas Oil, 30°—34° per bbl.	$1.30-1.35	1.35-1.40
Diesel Oil, 27°—plus per bbl.	$1.00-1.15	1.00-1.15
Bunker Oil, 14°—18° bbls.	$ .80-1.00	.80-1.00
Fuel Oil, 14°—18° per bbl.	$ .80-1.00	p95-1.00
Kerosene, W. W. 38°—40° per gal., 125-150 flash test	05½-06	.05½- .06
Cased Goods		
Gasoline, U. S. Motor	$2.25	-2.25
Kerosene, W. W. 38°—40° per case, 125-150 flash	$1.45-1.55	$1.45-1.55

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being products made from Domestic (including California) and Mexican Crudes.

	Nov. 29	Nov. 22
U. S. Motor Gasoline, Tank Cars Delivered greater N.Y.	-12½	12½-12¾
U. S. Motor Gasoline, Tank... Cars Bayonne	-11½	11½-11¾
U. S. Motor Tank Cars, *Atlantic Seaboard Terminals.	-11½	-11½
Kerosene, 44 150 W. W. Tank Cars d'd greater N.Y.	11	-11¾
Grade C Bunker f.o.b. N.Y. Ref	-1.75	-1.75
Diesel Oil f.o.b. Refinery	2.50	2.50
Gas Oil, 36-40, Bulk Refinery.	-06¼	-06¼
Gas Oil, 28-34 Bulk, Refinery.	-05¾	-05¾

*New York, Philadelphia, Portsmouth, Va. Charleston, S. C.

Crude Oil Prices, as Posted by Major

EASTERN FIELDS

(Posted by Joseph Seep Purchasing Agency)

Penna. Grade Oil in New York Transit Lines (Alleghany, N. Y. District)	$3.15
Bradford District Oil in National Transit Lines (Bradford District)	3.15
Penna. Grade Oil in National Transit Lines (Other Pennsylvania)	3.05
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania)	3.05
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)	3.00
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district)	2.80
Keister Grade in National Transit Lines (Butler Co.)	1.80
Cabell Grade in Eureka Pipe Lines (West Virginia)	2.10
Corning Grade in Buckeye Pipe Lines (Ohio)	2.25
Corning, O. heavy grade	2.15
*Somerset Medium in Cumberland Pipe Lines (Kentucky)	2.20
*Somerset Light in Cumberland Pipe Lines (Kentucky)	2.35
Ragland Grade in Cumberland Pipe Lines (Kentucky)	.95

*Somerset oil run prior to Oct. 1, 1923, takes price of 6 cents lower than above quotations.

(Posted by Stoll Oil Refining Co.)

Oil City Ky. oil in Stoll lines	$2.35

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.

Wooster	$2.25	Plymouth	$1.63
Lima	2.21	WesternKentucky	1.83
Waterloo	1.35	*Canadian Petrolia	2.61
Indiana	1.98	*Oil Springs	2.68
Princeton	2.10	*Posted by Imperial Oil Ltd.	
Illinois	2.10		

OKLAHOMA, KANSAS And NORTH TEXAS

Prices of Prairie Oil & Gas Co.
(In Oklahoma, Kansas, North and East Central Texas)

Effective Nov 17, 1926.

28-28.9	$1.50	34-34.9	$1.80
29-29.9	1.55	35-35.9	1.85
30-30.9	1.60	36-36.9	1.90
31-31.9	1.65	37-37.9	1.95
32-32.9	1.70	38-38.9	2.00
33-33.9	1.75	39-39.9	2.05
40-40.9	$2.10	47-47.9	$2.45
41-41.9	2.15	48-48.9	2.50
42-42.9	2.20	49-49.9	2.55
43-43.9	2.25	50-50.9	2.60
44-44.9	2.30	51-51.9	2.65
45-45.9	2.35	52 and above	2.70
46-46.9	2.40		

Above schedule met by Sinclair and Gulf on Nov. 17.

Humble Oil & Refining Co. Prices
(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

On Nov. 1, Humble first posted the price schedule adopted by Prairie on Nov. 17, except that Humble is paying 5c less for each degree of gravity on oil below 28°.

The Texas Co. posted same gravity and price schedule in Oklahoma, North, North Central and Central Texas on Nov. 5 as Humble, excepting it is paying $1.40 for all oil below 28° gravity in Texas fields.

Mirando, Tex	$1.25

Magnolia Petroleum Co.
(In Oklahoma, Kansas and North and East Central Texas)

Same grades and prices as posted by Prairie excepting that Magnolia is paying $1.30 for all oil below 28° gravity, effective Nov. 2.

Corsicana heavy	$1.25
Iatan, Tex	1.50

Carter Oil Co.
(Oklahoma and Kansas)

On Nov. 2, Carter posted same gravity and price schedule as Prairie is now maintaining.

PANHANDLE, TEXAS

Humble Oil & Refining Co.

Hutchinson, Carson and Wheeler Counties....$1.25
Gray County:

28-28.9	$1.00	37-37.9	$1.45
29-29.9	1.05	38-38.9	1.50
30-30.9	1.10	39-39.9	1.55
31-31.9	1.15	40-40.9	1.60
32-32.9	1.20	41-41.9	1.65
33-33.9	1.25	42-42.9	1.70
34-34.9	1.30	43-43.9	1.75
35-35.9	1.35	44 and above	1.80
36-36.9	1.40		

Magnolia Petroleum Co. posted flat price of $1.25 for all Panhandle Crude on Sept. 22, and Kay County Gas Co. on Oct. 4.

WEST TEXAS

(Crane, Upton and Crockett Counties)
Humble Oil & Refg. and Kay County Gas Co.

Below 26	$ .80	31-31.9	$1.10
26-26.9	.85	32-32.9	1.15
27-27.9	.90	33-33.9	1.20
28-28.9	.95	34-34.9	1.25
29-29.9	1.00	35-35.9	1.30
30-30.9	1.05	36 and above	1.35

NORTH LOUISIANA—ARKANSAS FIELDS

***Prices of Standard Oil Co. of Louisiana**
Caddo, Homer, Haynesville, Bull Bayou, El Dorado, Crichton and De Soto
Effective Nov. 4

Below 28	$1.40	40-40.9	$2.10
28-28.9	1.50	41-41.9	2.15
29-29.9	1.55	42-42.9	2.20
30-30.9	1.60	43-43.9	2.25
31-31.9	1.65	44-44.9	2.30
32-32.9	1.70	45-45.9	2.35
33-33.9	1.75	46-46.9	2.40
34-34.9	1.80	47-47.9	2.45
35-35.9	1.85	48-48.9	2.50
36-36.9	1.90	49-49.9	2.55
37-37.9	1.95	50-50.9	2.60
38-38.9	2.00	51-51.9	2.65
39-39.9	2.05	52 and above	2.70
Smackover, below 24			$1.10
" 24-24.9			1.35
" 25-25.9			1.40
" 26-26.9			1.45
" 27 and above			1.50
Bellevue			1.40
Cotton Valley			1.20
**Urania, La			1.10
†Calion (East El Dorado)			.95

*Gulf and La. Oil Refg. Corp. met S. O. La. prices on Nov. 4 and The Texas Co. and Magnolia Pet. met on Nov. 5.
**Posted by Louisiana Oil Refining Corp.
†Posted by Gulf

STEPHENS, ARKANSAS

Posted by Atlantic Oil Producing Co.

Below 28	$1.30	29-29.9	$1.45
28-28.9	1.40	30 and above	1.50

GULF COASTAL and SPINDLETOP

Posted by Humble Oil & Refining Co.

Grades A	$1.40	28-29.9	$1.65
Grades B:		30-30.9	1.70
Below 25	1.40	31-31.9	1.75
25-25.9	1.45	32-32.9	1.80
26-26.9	1.50	33-33.9	1.85
27-27.9	1.55	34-34.9	1.90
28-28.9	1.60	35 and above	1.95

Fields classified as A and B are Goose Creek, Hull, Liberty, West Columbia, Orange, Boling and Pierce Junction. All other fields are Grades A only.

Magnolia Petroleum is paying same prices in Spindletop as Humble, except that its top grade is 31-31.9 at $1.75, effective Nov. 16.

Crude Price Changes

DALLAS, Nov. 29.—On Nov. 23 Magnolia Petroleum Co. advanced Iatan, district, Tex., crude 35 cents, to $1.50 per barrel at the well.

TULSA.—Glenver McConnell, production engineer for the Roxana Petroleum Corp., has returned to Marrietta, O. on Nov. 18 on account of the death of his wife. Mrs. McConnell was buried in her old home town of Marrietta.

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Eastern and Central Kentucky Market

ASHLAND & LEXINGTON, KY., Nov. 29.—Gasoline, fuel and gas oil prices in eastern Kentucky refinery market are easier, all being ¼ cent lower over quotations of previous week, excepting 64-66 gasoline which is unchanged, and 24-26 fuel oil, which is down only ⅛ cent. Kerosene is steady at 8¼ cents.

Quotations in central Kentucky refining district are firm with slightly increased demand on all commodities over week ago. All prices in this district are unchanged. Today's quotations are:

	Eastern	Central
58-60 gasoline	11¾	11
60-62 gasoline	12	
64-66 gasoline	12¾	
68-70 gasoline	13¼	
41-43 w.w. kerosene	8¼	8⅛
34-36 gas oil	6	6
24-26 fuel oil	5	5

Purchasers, in All Fields (in Effect, Nov. 29, 1926)

GULF COASTAL and SPINDLETOP
Prices of The Texas Co.

Grades A	$1.40	*Grades B	$1.40
‡Grades B (light crude):			
35-35.9	$1.95	38-38.9	$2.10
36-36.9	2.00	39-39.9	2.15
37-37.9	2.05	40 and above	2.20

*Grades B include all heavy crudes which do not meet tests for Grades A or for Gulf Coast light crude.

‡The Texas Co.'s gravity and price schedule on oil below 35° is same as Humble's postings on Grades B.

ROCKY MOUNTAIN FIELDS
Prices of Ohio Oil Co. and Midwest Refining Co

‡Salt Creek	29-29.9	$1.55
" "	30-30.9	1.60
" "	31-31.9	1.65
" "	32-32.9	1.70
" "	33-33.9	1.75
" "	34-34.9	1.80
" "	35-35.9	1.85
" "	36-36.9	1.90
" "	37 and above	1.95
Elk Basin		2.00
Grass Creek light		2.00
Big Muddy		$1.85
Lance Creek		2.00
Rock Creek		1.85
Mule Creek		1.45
Rex Lake		1.25
‡Osage		2.00
‡Cat Creek, Mont		2.00
Sunburst, Mont		1.85
‡Hogback, N. Mex		2.45
Artesia, N. Mex		1.65

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light, and Elk Basin.

The Texas Co. buys Salt Creek and Big Muddy crude.

CALIFORNIA
Standard Oil Co. of California

Santa Maria and Ventura Posted by Union Oil Co.

Gravity	Signal Hill Huntington Beach	Inglewood Torrance	Whittier La Habra	Newhall, McKittrick, Kern River	Olinda-Brea Canon, Richfield	Athens-Rosecrans Dominguez	Monte-bello	Coyote Hills	Santa Fe Springs	Midway Sunset Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria	Ventura
14-14.9	$ .85	$ .85	$ .85	$ .75	$ .85	.....	$ .85	$ .85	.....	$ .75	$ .75	$ .75	$ .75	$ .85	$ .85
15-15.9	.87	.87	.85	.75	.87	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
16-16.9	.90	.90	.85	.75	.90	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
17-17.9	.94	.94	.85	.75	.94	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
18-18.9	.98	.98	.86	.75	.98	.....	.86	.86	.....	.75	.75	.75	.75	.85	.85
19-19.9	1.04	1.04	.87	.75	1.04	.....	.87	.87	.....	.75	.75	.75	.75	.85	.85
20-20.9	1.10	1.10	.89	.....	1.10	.....	.89	.90	.....	.82	.82	.79	.78	.90	.90
21-21.9	1.16	1.16	.91	.....	1.16	.....	.91	.98	.....	.90	.90	.86	.81	.97	.97
22-22.9	1.22	1.22	.94	.....	1.22	.....	.94	1.06	.....	1.00	1.00	.93	.85	1.04	1.04
23-23.9	1.28	1.28	.....	.....	1.28	.....	.97	1.14	.....	1.11	1.11	1.00	.89	1.11	1.11
24-24.9	1.34	1.34	.....	.....	1.34	$1.34	1.01	1.22	$1.02	1.22	1.22	1.07	.93	1.18	1.18
25-25.9	1.40	1.40	.....	.....	1.40	1.40	1.05	1.30	1.08	1.33	1.33	1.14	.97	1.25	1.25
26-26.9	1.46	1.46	.....	.....	1.46	1.46	1.09	1.38	1.16	1.44	1.44	1.21	1.01	1.32	1.32
27-27.9	1.52	1.52	.....	.....	1.52	1.52	1.13	1.46	1.24	1.55	1.55	1.28	1.05	1.39	1.39
28-28.9	1.58	1.58	.....	.....	1.58	1.58	1.17	1.54	1.32	1.66	1.66	1.35	.....	1.46	1.46
29-29.9	1.64	.....	.....	1.64	1.64	1.64	1.21	1.62	1.40	1.77	1.77	1.42	.....	1.53	1.53
30-30.9	1.70	.....	.....	.....	1.70	1.70	1.25	1.70	1.48	1.88	1.88	1.49	.....	1.60	1.60
31-31.9	1.76	.....	.....	.....	.....	1.76	.....	.....	1.60	1.99	1.99	1.56	.....	.....	1.67
32-32.9	1.84	.....	.....	.....	.....	1.84	.....	.....	1.72	2.10	2.10	1.63	.....	.....	1.73
33-33.9	.....	.....	.....	.....	.....	1.92	.....	.....	1.84	2.21	2.21	1.70	.....	.....	1.79
34-34.9	.....	.....	.....	.....	.....	2.00	.....	.....	1.96	.....	2.32	1.77	.....	.....	1.85
35-35.9	.....	.....	.....	.....	.....	2.08	.....	.....	2.08	.....	.....	1.84	.....	.....	1.92
36-36.9	.....	.....	.....	.....	.....	2.16	.....	.....	2.16	.....	.....	.....	.....	.....	.....
37-37.9	.....	.....	.....	.....	.....	2.24	.....	.....	2.24	.....	.....	.....	.....	.....	.....
38-38.9	.....	.....	.....	.....	.....	2.34	.....	.....	2.34	.....	.....	.....	.....	.....	.....
39-39.9	.....	.....	.....	.....	.....	2.44	.....	.....	2.44	.....	.....	.....	.....	.....	.....
40-40.9	.....	.....	.....	.....	.....	2.54	.....	.....	.....	.....	.....	.....	.....	.....	.....
41-41.9	.....	.....	.....	.....	.....	2.64	.....	.....	.....	.....	.....	.....	.....	.....	.....
42-42.9	.....	.....	.....	.....	.....	2.74	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Union Oil Co. also purchases Long Beach Crude and is maintaining the same gravity and price schedule in that field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Dominguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees and in Santa Fe Springs, on gravities ranging from 20 to and including 23.9 degrees.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

	Nov. 29	Nov. 22
Soda Ash light 58⅓ bags.cwt.	$1.38	$1.38
Silicate of Soda 60 deg. drums.....cwt.	-$1.65	-$1.65
Sal Soda wks.....90- 1.10	.90- 1.10	
Caustic Soda 70⅓ solid..cwt. 3.05- 3.10	- 3.10	
Chloride of Lime.....cwt. works.....	- 2.00	- 2.00
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point.....per ton 10.50-11.00	10.50-11.00	
Liquid Chlorine tank cars works.....lb.	- .04	- .04

Compounders' Supplies (Open Market)

Vegetable Oils—		
Linseed carloads spot.....lb.	11	11
December.....	11	11
Tanks, spot.....	10.2	10.2
Boiled carloads spot.....lb.	11.4	11.4
*Soya Bean spot, Bbls....lb.	13	13
Castor Oil—		
No. 1 Carlots, Bbls.....	-.12¾	-.12¾
No. 3 Carlots, Bbls.....	-.11¾	-.11¾
Animal Oils—		
English Degras.....	.05½	-.05½
Domestic Degras, bbls., carloads.....lb.	-.04¾	-.04¾
*Horse.....lb.	-.08¼	-.08¼
Oleic Acid—		
Dist. Bbls.....lb.	.09¾-.10¼	.09¾-.10¼
Saponified Bbls.....lb.	.10 -.10½	.10 -.10½
Lard Oils—		
Prime		
Winter Strained. to 1⅛ ffa.	40/45c.t.lb. .14½	.15⅜
Extra		
Winter Strained. 2 to 4½ ffa.	40-45c.t.lb. .12¾	.13¼
Extra..... 4 to 5 ffa.	40-45c.t.lb. .12¼	.12¾
Extra No. 1. 7 to 10 ffa.	40-50c.t.lb. .10¼	.10¾
No. 1.....15 to 18 ffa.	40-45c.t.lb. .10	.10½
No. 2.....22 to 23 ffa.	40-45c.t.lb. .09¾	.10¼
Prime Edible Tallow under 1⅛ ffa. 40-45c.t.N.Y.....lb.	-.08¾	-.08¾
Tallow acidless.....lb.	-.10¾	-.10¾
Lard Stearine.....lb.	-.16¾	-.16¾
Oleo Stearine.....lb.	-.10	-.10
Neatsfoot Oil—		
Pure.....bbls.-lb.	.13¾	.13¾
Extra.....do lb.	.10¾	.10¾
No. 1.....bbls.-lb.	.10	.10½
Cold pressed.....lb.	.17¾	.17¼
Fish Oils—		
Menhaden Oil		
Light pressed.....gal.	-.58	-.58
White.....gal.	-.67	-.67
Yellow bleached.....gal.	-.65	-.65
*Herring tank cars coast.....gal.	-.47	-.47
Whale, extra winter bleached.....gal.	-.82	-.82
Seal.....gal.		nominal
Naval Stores—		
Turpentine, N. Y.....gal.	-.89	-.86
Turpentine†.....gal.	-.82½	.80
Rosin, B. N. Y.....bbl.	13.00	13.25
Rosin, F. N. Y.....bbl.	13.15	13.25
Rosin, B†.....bbl.	11.25	11.20
Rosin, F†.....bbl.	11.35	11.20
Rosin Oil 1st run.....gal.	.82	.82
Rosin Oil 2nd run.....gal.	.90	.90
Pine Tar—		
Kiln Burnt.....bbl.	16.00	16.00
Retrt.....bbl.	16.00	18.50

†Savannah, Ga. market.
*Nominal.

Alcohol—Denatured—		
Formula 5		
Bbls.....gal.	-40	-40
Drums.....gal.	-38	-38

Market Section

OIL STOCKS AND FINANCES

National Petroleum News

Simms Stockholders Take Most of Note Issue

NEW YORK, Nov. 29.—Subscription rights to Simms Petroleum Co.'s issue of $3,431,500 3-year 6 per cent convertible gold notes expired Nov. 15. It is believed stockholders took most of the issue. Holders of Oct. 25 record were permitted to subscribe for $500 par value of notes for each 100 shares held on that date. The notes are convertible into capital stock at the rate of 20 $10 shares for each $500 note on or before Nov. 15, 1928, $25 a share. The notes and $1,372,000 additional capital stock have been listed on the New York Stock Exchange.

Proceeds from the note sale are to be used to retire $374,000 equipment trust certificates and for other corporate purposes.

The company in the eight months ended Aug. 31 netted $610,124 after depreciation, depletion, interest and general taxes, equivalent to 88 cents a share on the $10 stock. The balance sheet of Aug. 31 showed current assets amounting to $6,474,716, of which $2,728,412 was cash, and current liabilities of $1,323,381. Total assets amounted to $20,311,422. The new notes are the only issue senior to the capital stock.

In the eight months Simms and subsidiary companies produced 2,278,998 barrels of crude net, a daily average of 9379 barrels. Daily average refinery throughput was 4173 barrels.

Crystal is Earning Profit

NEW YORK, Nov. 26.—Net profit of the Crystal Oil Refining Corp., the successor to Caddo Oil & Refining Corp., amounted to $172,279 in the period from Feb. 27 to Aug. 31, 1926, after all charges including federal income taxes. This amount was equivalent after allowing for dividends on the 6 per cent preferred stock to 93 cents a share on the 102,952 shares of no par common stock outstanding. Condensed income account for the period follows:

Gross income	$4,052,127
Expenses & ordinary taxes	3,754,415
Operating profit	279,712
Interest	11,358
Depreciation	90,000
Estimated federal taxes	24,074
Net profit	$172,279

Beacon Oil Co. Earnings

NEW YORK, Nov. 27.—Beacon Oil Co. reports for the third quarter of 1926 earning of $652,835 after expenses, interest and depreciation but before federal taxes and a surplus of $607,592 after dividends on the preferred stock. In the first three quarters earnings before federal taxes amounted to $1,009,430. The surplus after preferred stock dividends was $873,711.

Beacon Oil Co. Issues $3,000,000 Notes

BOSTON, Nov. 27.—Beacon Oil Co. has issued $3,000,000 10-year 6 per cent sinking fund gold debentures with common stock purchase warrants through a syndicate headed by White, Weld & Co., Marshall Field, Glore, Ward & Co., and Stevenson, Perry, Stacy & Co., at 101 and accrued interest to yield 5.85 per cent.

The warrant on each $1,000 debenture entitles the holder to buy 25 shares of Beacon common stock before July 1, 1928, at $20 a share; after that date and before July 1, 1929, 24 shares at $21 a share; after the latter date and before Nov. 1, 1930, 22½ shares at $23 a share; after the last mentioned date and before Nov. 1, 1931, 22½ shares at $25 a share. Scrip is to be issued for fractional shares. Present price of stock on New York Curb Market is around $16 a share.

Richard B. Kahle, president of Beacon, in a letter to bankers said the company earned in the four years ended last Dec. 31 an average of $1,147,352 a year after all charges except depreciation and federal taxes.

Foreign Opportunities

Reserved information may be obtained from the Bureau of Foreign and Domestic Commerce, Washington, and its district and cooperative offices by duly registered firms and individuals upon written request by opportunity number. The Bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers; the usual precautions should be taken in all cases, and where no references are offered it does not necessarily imply that satisfactory references could not be given. Correspondence may be in English unless otherwise stated.

22923.—**Crude oil,** Barcelona, Spain, agency.

22956.—**Lubricating oils and naphtha** Canton, China, agency.

22986.—**Paraffin,** Dresden, Germany, purchase.

23056.—**Benzine, benzol and gas oil,** Hamburg, Germany, purchase and agency.

23077.—**Paraffin,** Catania, Italy, agency.

23085.—**Paraffin and pitch,** Hamburg, Germany, purchase and agency.

Union Tank Car Stock Dividend Expected

NEW YORK, Nov. 29.—It is expected that a 25 per cent stock dividend will be declared by directors of the Union Tank Car Co. following approval on Nov. 22 at a special meeting of stockholders of an increase in the common stock from $25,000,000 to $40,000,000.

The company will redeem its $12,000,000 7 per cent preferred stock Dec. 1 at 115 and accrued dividends. Dividends on the preferred will cease Dec. 1.

Stockholders amended the certificate of incorporation to permit shareholders' meetings in New Jersey where the company is incorporated or in Chicago where the principal office is.

Several Companies Seek Pantepec Leases

NEW YORK, Nov. 27.—Pantepec Oil Co. is reported to be negotiating with several companies for the development of its properties in Venezuela which were not included in the contract with the Union Oil Co. of California recently signed.

James M. Douglas who has been chief geologist for the Union in the Rocky Mountain and Mid-Continent fields, will sail about Jan. 1 to Venezuela as manager of the Union National Petroleum Co., the corporation formed by the Union to operate the Pantepec concessions. It is said Union expects to begin active development on 878,000 acres of the Pantepec properties early in 1927.

North Central Texas Reports

NEW YORK, Nov. 29.—North Central Texas Oil Co. netted $119,822 after depletion, depreciation and federal taxes in the first half of 1926. This sum was equivalent to 48 cents a share on the no par stock, 248,846 shares of which was outstanding June 30. The June 30 balance sheet showed $426,027 current assets of which $256,814 was cash or call loans, and $25,275 current liabilities. Net working capital was $400,352 compared with $247,260 Dec. 31, 1925.

Swan-Finch Oil Corp.—All directors and officers reelected at annual meeting.

Pantepec Oil Co. of Venezuela.—David G. Baird, a New York insurance man, elected a director.

Transactions In Oil Shares on New York Stock Exchange

1925 High	1925 Low	1926 High	1926 Low		Listed Capital	Par Value	Stocks	Div. Rate	Div. Last Paid	Transactions week ended Nov. 27 Sales	First	High	Low	Last	Ch'ge
.....	.....	32⅞	24¼	(sh)	713 000	N.P.	Amerada Corp.	50cQ	Oct. 30, 26	3,300	30	30	29½	29½	0
70¾	48	74	39⅞	(sh)	200 000	N.P.	American Republics	.....	.....	700	48	48	47	48	+ ⅛
47¾	32	59½	44¾	$	56 000,000	$25	Associated Oil	50cQ	Sept.25, 26	200	50½	50½	50½	50½	—1
117½	95½	128⅜	97		50,000,000	100	Atlantic Refining	.....	June 16, 24	1,700	103⅞	103⅞	102¾	102⅞	+ ⅞
117¾	113½	120	115⅝		20,000,000	100	do pfd	$1¾Q	Nov. 1, 26	700	117	117	116½	116½	— ¼
33½	18¾	33½	23¾		25,000,000	25	Barnsdall Corp. A	50cQ	Oct. 1, 26	6,700	27¼	27¾	27	27	0
30	16	29½	22½		3,713,275	25	do B	50cQ	Oct. 1, 26	500	24⅞	25	24⅞	25	+ ⅛
54¾	23⅞	58⅜	29¾	$	45,040,125	$25	California Petroleum	50cQ	Dec. 1, 26	6,600	31	31	30½	30⅝	+ ⅛
70	42½	94½	50		23,542,500	100	General Asphalt	.....	.....	97,900	75½	85⅞	75½	84⅛	+9⅜
109	86½	140⅝	94⅞		7,416,000	100	do pfd	$1¼Q	Dec. 1, 26	1,100	120	127⅞	120	127⅞	+11⅜
85	59	72	50¼		25,000,000	100	Houston Oil	.....	.....	1,600	54½	55⅜	54½	55	0
41¾	13½	34	19⅝	(sh)	500,000	N.P.	Independent Oil & Gas	25cQ	Oct. 18, 26	47,200	28	28⅝	26¾	27	—1
14¼	5½	13¾	7¾	$	3,204,590	$10	Indian Refining	.....	Dec. 15, 20	600	8	8⅛	8	8⅛	+ ⅜
12⅝	6	12½	7½		4,545 860	10	do ctfs	.....	.....	600	8	8	8	8	0
110	77	104	90		2,296,400	100	do pfd	.....	Dec. 15, 21	100	96	96	96	96	—1⅜
1½	¼	¾	¼		1,678,760	10	Kansas & Gulf	.....	.....	200	¼	¼	¼	¼	0
.....	.....	24½	19⅛	(sh)	4,000,000	N.P.	Lago Oil & Transport	.....	.....	18,600	20¾	21	20⅛	20⅛	— ⅜
23¾	13⅝	19⅞	12	(sh)	1,131,216	N.P.	Louisiana Oil Refining	.....	.....	4,200	14⅛	14¾	14¼	14½	0
.....	.....	97	93½	$	4,000,000	$100	do pfd	$1½Q	Nov. 15, 26	.....	.....	.....	.....	.....	.....
55½	20¾	28⅞	16½	(sh)	330,000	N.P.	Maracaibo Oil	.....	.....	300	19½	19½	19¼	19¼	+ ⅛
60½	32¾	63⅜	40¼	(sh)	1,895 823	N.P.	Marland Oil Co	$1Q	Sept. 30, 26	23,300	53⅞	54¾	53⅝	53⅞	+ ¼
$50	225	.....	.....	$	45,942,800	$100	Mexican Petroleum	$3Q	Oct. 20, 26	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....		12,000,000	100	do pfd	$2Q	Oct. 20, 26	.....	.....	.....	.....	.....	.....
22½	29	18¾	6	(sh)	945,939	N.P.	Mexican Seaboard	.....	Nov. 15, 24	3,300	8½	8⅝	8	8	— ½
88	25¾	37	27¼	(sh)	1 357 800	N.P.	Mid-Continent Petroleum	.....	Aug. 1, 25	7,300	30¼	30½	29⅝	30	— ½
94¾	88	101⅝	90	$	6,718 000	$100	do pfd	$1¾Q	Dec. 1, 26	400	101	101¼	101	101¼	+ ¼
3¼	⅝	2⅛	¾		25,415,540	10	Middle States	.....	July 1, 25	9,000	⅞	⅞	¾	⅞	0
1½	1½	1⅜	½		4,384,680	....	do ctfs	.....	.....	2,400	½	½	½	½	0
78½	51⅜	83¼	1	(sh)	3,500,000	N.P.	Pacific Oil	.....	Jan. 20, 26	7,800	1½	1⅝	1½	1½	0
88⅞	59½	76½	56⅜	$	48,307,400	$50	Pan American P. & T	$1.50Q	Oct. 20, 26	2,800	63	64½	61	61	—3
84½	60⅜	78⅜	56⅞		91,025,100	50	do B	$1.50Q	Oct. 20, 26	35,200	62⅞	64	60½	60⅝	—2
49¾	37½	46	30	(sh)	400,000	N.P.	Pan American Western B	50cQ	Oct. 30, 26	2,000	32	32	31¾	31¾	+ ¾
6¼	2¼	32	4½	(sh)	198,770	N.P.	Panhandle P. & R	.....	.....	900	16	16	15⅞	16	0
80½	37	99⅜	51	$	2,935,200	$100	do pfd	.....	July 2, 25	.....	.....	.....	.....	.....	.....
47⅛	36¼	53⅝	40	(sh)	2,406,692	N.P.	Phillips Petroleum	75cQ	Oct. 1, 26	192,500	51	53⅝	50¾	53½	+2½
3½	1¼	1⅞	⅝	$	29,622,925	$25	Pierce Oil Corp	.....	.....	9,000	1	1	⅞	⅞	0
40	20¼	27⅜	11⅝		15,000,000	100	do pfd	.....	Feb. 1, 22	1,700	13	17	13	17	+4½
8¼	4½	7	2½	(sh)	2,500,000	N.P.	Pierce Petroleum	.....	.....	31,500	3	4	3	3¾	+ ¾
82⅝	12½	20⅞	11	$	11,467,850	$50	Producers & Refiners	.....	Sept.15, 23	2,700	17½	18½	17¼	17½	— ¾
47⅝	27	41¾	30¾		2,845,350	50	do pfd	.....	May 1, 25	.....	.....	.....	.....	.....	.....
33¾	25⅛	31	25¼		75,959,250	25	Pure Oil Co	37½cQ	Dec. 1, 26	3,000	26	26¾	26	26⅜	+ ⅛
108½	103	112¾	106		18,000,000	100	do 8% pfd	$2Q	Oct. 1, 26	100	111⅛	111⅛	111⅛	111⅛	+ ⅞
57⅜	48¼	57⅜	47⅜	(sh)	691,922	13.40	Royal Dutch, N. Y. shares	$1.739	Aug. 2, 26	900	48½	49½	48½	49½	+1½
49	39½	48⅝	40¾	(sh)	93,345	£2	Shell Transport & T	$1.21	July 24, 26	100	43½	43½	43½	43½	0
28⅜	21⅜	30⅞	24	(sh)	10,000,000	N.P.	Shell Union Oil	35cQ	Sept. 30, 26	33,400	30	31	30	30⅝	+ ⅝
106½	99½	114	103	$	20,000,000	$100	do pfd	$1½Q	Nov. 15, 26	100	107⅛	107⅛	107⅛	107⅛	— ⅜
28½	17¾	28⅝	15⅝		7,207 620	10	Simms Petroleum	50cS.A.	July 1, 26	6,800	18⅜	18⅝	18⅛	18¼	— ⅜
24⅞	17	24⅞	16¾	(sh)	4,489,887	N.P.	Sinclair Consolidated	.....	May 31, 24	11,300	17½	17⅞	17⅜	17⅝	— ⅜
94⅛	78¾	99½	90	$	17 852,200	$100	do pfd	$2Q	Nov. 15, 26	200	93½	94¼	93½	94½	—1¼
32½	21¾	36⅞	26⅜		25,988,590	25	Skelly Oil Co	50cQ	Sept. 15, 26	16,300	32½	34	32½	33⅝	+1⅜
.....	.....	63¾	52⅝	(sh)	13,016,434	N.P.	S. O. California	50cQ	Sept. 15, 26	9,600	58⅛	58⅜	58	58	0
47½	38¾	46⅜	37½		515,109,675	25	S. O. New Jersey	25cQ	Sept. 15, 26	76,400	40⅛	41⅜	x37½	37⅞	+ ⅛
119	116½	119⅛	115⅛		199,972,900	100	do pfd	$1¾Q	Sept. 15, 26	50,000	117½	117½	x115⅛	115⅛	— ⅛
43⅞	38⅛	41⅝	30⅜	(sh)	1,103,931	N.P.	Sun Oil	25cQ	Sept. 15, 26	1,000	32½	33½	x32⅜	32⅜	+2⅝
6⅜	2	5	1	(sh)	1,121,368	N.P.	Superior Oil Corp	.....	Dec. 20, 20	12,600	4	4	3⅞	4	0
55	42¾	57¼	48	$	164,450,000	$25	The Texas Co	75cQ	Sept. 30, 26	6,500	54	55⅛	53⅝	55⅛	+1
23¾	10⅞	19½	12		8,380,340	10	Texas Pacific Coal & Oil	.....	June 30, 23	5,000	14¼	14⅞	14⅛	14¼	— ⅛
36⅞	30¾	39¼	27¼	(sh)	2,137,570	N.P.	Tide Water Oil Co	$7½c	Sept. 30, 26	.....	.....	.....	.....	.....	.....
101	99	103	87¾	$	20,672,900	$100	do 5% pfd	$1.25Q	Nov. 15, 26	300	87½	88½	87½	88½	+1
5⅞	3¼	5½	3	(sh)	3,742,029	N.P.	Transcontinental Oil	.....	.....	15,700	3⅞	4⅛	3¾	4⅛	+ ⅛
43¾	33	58¾	37¼	$	40,480,800	$25	Union Oil of California	50cQ	Nov. 10, 26	12,600	52⅝	53¼	52	52½	0
134	96½	120	80		24,423,300	100	Union Tank Car Co	$1¼Q	Dec. 1, 26	800	114	115	113	113	—1
117⅝	113¼	118	113¼		12,000,000	100	do pfd	$1¾Q	Dec. 1, 26	300	116⅜	116½	116⅛	116½	+ ¼
31¾	25½	29¼	25⅛	(sh)	490,000	N.P.	White Eagle Oil & Refining	50cQ	Oct. 20, 26	2,000	25⅝	26	25½	25¾	0

*New High †New Low xEx-Dividend Total Sales 789,600

Pittsburgh Stock Exchange

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Nov. 26 Sales	First	High	Low	Last	Ch'ge
.....	.....	8¾	6¾	N.P.	Andes Petroleum	.....	.....	.....	.....	.....	.....
8¼	5¾	8½	5¾	$10	Arkansas Nat. Gas	4,070	7¾	7⅞	7½	7⅝	— ¼
.....	.....	98	79¾	100	Columbia Gas (w.i.)	908	86	88	86	88	+1
.....	.....	100¾	95	$100	Col. Gas & El.pfd.w.i.	421	100	*100¾	100	100½	+4¼
18	14½	17	12½	$10	Devonian Oil	282	15¼	15¼	15¼	15¼	+ ¼
112¾	105⅝	116½	112	$100	Duquesne Lt. 7s pfd	.....	.....	.....	.....	.....	.....
.....	.....	10	5⅜	N.P.	Houston Gulf Gas	980	5⅝	5¾	5½	5½	— ⅛
.....	.....	46	39	25	Lone Star Gas Corp	4,260	44	45¼	43⅞	45¼	+1⅜
37¾	31	45½	33⅝	25	Ohio Fuel Corp	844	45¼	*45½	45⅝	45½	+ ½
.....	.....	45⅝	42	....	do ctfs. of deposit	709	45½	*45⅝	45¼	45⅝	+ ⅛
.....	.....	5½	5	....	Ohio Oil & Gas	.....	.....	.....	.....	.....	.....
34	26	34	28	25	Oklahoma Nat. Gas	.....	.....	.....	.....	.....	.....
.....	.....	20¾	19¼	....	do ctfs. of deposit	3,042	20	20	20	20	0
8¾	5	5¾	3⅝	5	Pittsburgh O. & G	440	3½	4	3½	3⅞	+ ⅛
9⅜	6	10	7½	10	Salt Creek Cons	60	8	8	8	8	0
13¾	8½	27	8	10	Tidal Osage	5,320	20	22⅝	20	20	0
.....	.....	42½	40	N.P.	Waverly Oil Wks. "A"	365	42	42	42	42	— ¼

Pittsburgh Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Nov. 26 Sales	First	High	Low	Last	Ch'ge
2½	.60	3¾	2½	$ 5	Colombia Synd	.....	.....	.....	.....	.....	.....
.60	.15	.15	.06	5	Duquesne Oil	500	.10	.10	.10	.10	0
9	5½	22	22	10	Forest Oil	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	....	Guffey-Gillespie Oil	.....	.....	.....	.....	.....	.....
92¾	64	91¾	85	25	Gulf Oil Corp	.....	.....	.....	.....	.....	.....
.....	.....	79	79	100	Houston Gulf pfd	.....	.....	.....	.....	.....	.....
12½	8¾	12	7½	N.P.	Leonard Oil & Dvlp	.....	.....	.....	.....	.....	.....
.....	.....	1⅝	1⅝	N.P.	Mountain & Gulf	.....	.....	.....	.....	.....	.....
.....	.....	30¾	29	....	Oklahoma Gas	20	30	30	30	30	+1
.47	.20	1.8	.15	10	Omar O. & G	16,750	.99	*1.80	.99	1.65	+.67
.....	.....	2	1¾	5	Pittsburgh Oil Dev	.....	.....	.....	.....	.....	.....
27½	25	33½	20	10	Plymouth Oil	850	28	28	27⅝	27⅝	— ⅜
7	3	5½	3	5	States Oil	.....	.....	.....	.....	.....	.....
4	1⅜	3½	2	$ 1	Texon Oil & Land	450	2⅛	2⅛	2⅛	2⅛	0
.....	9	25¾	8	10	TidalOsage(non-voting)	600	20	20	18½	18½	—3½

*New High †New Low xEx Dividend ‡Ex-Rights

NEW YORK CURB BONDS

Week Ending Nov. 26

	High	Low	Last	Ch'ge
Barnsdall Corp. 6s w.i	90½	88½	88½	—1½
Cal. Pet. 5½s	99¾	99⅛	99¾	+1¼
Cal. Pet. 6s '66	97	96½	96⅞	+ ¼
Cal. Pet. 7s "D" '66	122¼	121½	122⅛	+ ⅝
Cal. Pet. 8s "E" '66	130	130	130	0
Galena S. O. 7s '30	88	87	88	0
General Pet. 6s '28	101⅜	101⅛	101⅜	— ⅛
Gulf Oil 5s '37	100½	100⅛	100⅛	0
Gulf Oil 5½s '27	100⅛	100⅛	100⅛	0
Gulf Oil 5½s '28	100½	100½	100½	0
Indepen. Oil 6½s '31	99½	99¼	99¼	0
Pan Amer. Pet. 6s '40	99½	98¾	99	— ½
Pure Oil 6½s '33	103¾	103⅛	103¾	+ ¼
S. O. N. J. 5s w.i	101¾	101⅝	101¾	0
S O N Y 6½s '33	105½	105¼	105¼	0
SunOil 5½s '39	100¼	99⅞	100	+ ⅜
Tidal Osage 7s '31	103	103	103	0
United Oil Prod. 8s '31	39	37½	39	0

NEW YORK BONDS

Amer. Rep. Deb. 6s	99	99	99	0
Associated Oil gold 6s	103	102½	102⅞	+ ⅛
Atl. Gulf Refining 5s	70	69⅛	70	+ ¼
Atlantic Refg. deb. 5s	101	100½	100½	— ⅝
Barnsdall Corp. sf 6s	99⅜	99	99⅛	+ ⅛
Cal. Petrol. sf 6½s	104	103¾	103¾	0
Cal. Petrol. Con 5½s	100⅝	99⅝	100⅛	— ⅛
Empire Gas & Fuel 7½s	104½	104⅛	104¼	— ¼
Empire Gas & Fuel 7½s reg	103⅛	103⅛	103⅛	0
Empire Gas & Fuel 6½s	99	98⅜	99	+ ¼
Gen. Asphalt 6s	108½	108⅛	108½	+1½
Gen. Petroleum 5s	101⅝	101⅜	101⅜	0
Humble Oil & Refg. 5½s	102⅜	102	102⅜	+ ⅜
Mid-Cont. Pet. 6½s	105	104½	104¾	— ⅛
Pan-Amer. P & T 6s	105¼	104	104	— ⅜
Simms Pet. cvt. 6s	101½	101½	101½	0
Sinclair Con. Oil Col. 7s	97	96⅝	96¾	— ¼
Sinclair Con. Oil Con. 6½s	92⅞	91⅝	92	+ ¼
Sinclair Con. Oil 6s	100	99⅝	99¾	— ¼
Sinclair Crude Oil 6s	100⅞	100⅝	100¾	— ⅛
Sinclair Pipe Line sf 5s	92¾	92¼	92⅜	— ⅜
Superior Oil 7s	100	100	100	0
Union Oil of Cal. 6s-A	108	107½	107½	+ ¾
Union Oil of Cal. 5s-C	98¾	98¼	98¾	0

Market Section

Standard Oil Stock Traded in New York

1925 High	1925 Low	1926 High	1926 Low		Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended Nov. 26 Sales	First	High	Low	Last	Ch'ge
26⅜	17¼	21	16¾	£	4,000,000	£1	Anglo American	60¾cS.A.	May 27, 26	600	20⅜	20⅜	19⅞	19⅞	+ ⅛
.....	.....	20¼	16½		.....	£1	do ctfs non-votg	.....	.....	300	19⅛	19⅛	19⅛	19⅛	— ⅜
4¼	1¾	2¼	1¾	(sh)	500,000	N.P.	Atlantic Lobos	.....	.....	200	1¼	1¼	1⅛	1⅛	— ⅛
12¾	3	5	3½	$	10,000,000	$10	do pfd	.....	.....	600	3½	4½	3½	4¼	+ ⅜
240	205	301	226		1,000,000	100	Borne Scrymser	$4S.A.	Oct. 15, 26	.....	.....	.....	.....	.....	.....
.....	.....	70	65		.....	....	do new	.....	.....	.....	.....	.....	.....	.....	.....
72	58½	59½	42		10,000,000	50	Buckeye Pipe Line	$1Q	Sept. 15, 26	950	42½	44⅞	42½	44	+1½
74	48½	82½	65		3,000,000	25	Chesebrough Mfg	75cQ	Sept. 30, 26	600	78	79	77	79	+2
115	110	.....	.....		1,000,000	100	do pfd	$1¾Q	Sept. 30, 26	.....	.....	.....	.....	.....	.....
31½	21⅞	25⅞	17¾		34,914,280	10	Continental Oil	25cQ	Sept. 15, 26	25,600	18½	20½	18½	20⅜	+1¾
17¼	10	17	13½		1,500,000	25	Crescent Pipe Line	.....	Sept. 15, 23	.....	.....	.....	.....	.....	.....
156	132	137	102		3,000,000	100	Cumberland Pipe Line	$3Q	Sept. 15, 26	.....	.....	.....	.....	.....	.....
96	61	63¾	43		5,000,000	100	Eureka Pipe Line	$1Q	Nov. 1, 26	100	47	47	47	47	0
68½	23½	32½	9⅞		16,000,000	100	Galena Signal Oil	.....	June 30, 25	300	11⅜	12	11⅜	11¾	+ ⅜
105	88	94½	35		4,000,000	100	do new pfd	.....	June 30, 26	20	46¼	46½	46¼	46½	— ½
114	95	97½	45¾		2,000,000	100	do old pfd	.....	June 30, 26	10	49	49	49	49	+2
95	42¾	68¼	52		72,916,650	25	Humble Oil & Refining	30cQ	Oct. 1, 26	4,000	57	58¼	57	57¾	+ ¾
154½	127	144½	131		20,000,000	100	Illinois Pipe Line	$6S.A.	June 30, 26	160	130½	130½	127¾	127¾	—11¾
39¼	27¼	39¾	31½	(sh)	6,491,852	N.P.	Imperial of Canada	25cQ	Dec. 1, 26	2,700	36½	37½	36¼	37½	+1
84	57⅛	70	54¼	$	5,000,000	50	Indiana Pipe Line	$1Q	Nov. 15, 26	100	61	62	61	62	+1¾
35¾	22⅛	35⅞	28¾	(sh)	7,118,188	N.P.	International Petroleum	25c	Nov. 15, 26	8,700	30⅞	31¾	31	31½	+ ¾
25⅝	16½	20⅝	12½	$	6,362,500	$12½	National Transit	25cQ	Sept. 15, 26	500	13½	13½	13⅛	13⅛	— ⅝
79	49¾	51½	27⅛		5,000,000	100	New York Transit	.....	July 15, 26	.....	.....	.....	.....	.....	.....
88	67½	80½	64		4,000,000	100	Northern Pipe Line	$3S.A.	July 1, 26	.....	.....	.....	.....	.....	.....
75¼	60¼	67⅜	55¾		60,000,000	25	Ohio Oil Co	50cQ	Sept. 15, 26	2,300	57¼	58⅞	57½	58½	+1
44½	19	24¾	15		10,000,000	25	Penn Mex Fuel	.....	May 21, 25	700	21	21	20	20	—1¾
65½	45⅞	60¼	48		60,000,000	25	Prairie Oil & Gas	50cQ	Nov. 30, 26	2,050	49	49½	49	49½	+ ⅝
129¾	106	127½	122¼		81,000,000	100	Prairie Pipe Line	$2Q	Oct. 30, 26	850	124¾	125	124¾	124¾	— ¾
254	200	220	184½		4,000,000	100	Solar Refining Co	$5S.A.	June 19, 26	70	198	198	194	194	—4
103	63	74½	235⅝		10,000,000	100	Southern Pipe Line Co	.....	Mar. 1, 26	200	233¾	233¾	†235⅛	235⅛	— ⅛
47½	45	50	34½		20,000,000	25	South Penn Oil Co	37½cQ	Sept. 30, 26	300	36¼	36⅜	36	36	— ¼
84	50	56½	49		3,500,000	100	South West Pa. Pipe Line	$1Q	Oct. 1, 26	.....	.....	.....	.....	.....	.....
70¾	59½	70½	60½	$	223,756,258	$25	S. O. Indiana	62½cQ	Sept. 15, 26	18,400	64⅛	64¾	64⅛	64⅝	+ ⅜
46	30⅛	36½	16½		8,000,000	25	S. O. Kansas	.....	June 16, 24	800	18	19¼	18⅛	18¼	+ ½
137	114¾	134¾	108		16,864,434	25	S. O. Kentucky	$1Q	Sept. 30, 26	200	117½	118	117½	118	0
.....	.....	51⅝	42		4,518,000	25	S. O. Nebraska	63cQ	Sept. 20, 26	1,300	47½	47⅝	x47¼	47½	— ⅜
48⅝	40¾	47¼	30¾		358,102,000	25	S. O. New York	40cQ	Sept. 15, 26	27,400	30⅞	31⅜	30⅝	31½	+ ⅝
369	338	362	288		14,000,000	100	S. O. Ohio	$2½Q	Oct. 1, 26	50	302	297½	x297½	297½	—4½
128	116	122	117		7,000,000	100	do pfd	$1¾Q	Dec. 1, 26	20	118½	118½	118	118	0
27	12	23	15¼		1,722,931	25	Swan-Finch Co	.....	Nov. 1, 19	150	16	16	16	16	0
109½	80⅛	112	90¼		61,919,950	25	Vacuum Oil Co	50cQ	Sept. 20, 26	3,000	95	97¼	95	96¾	+2⅝

Oil Dividends

	Amt.	Payable	Stock of Record
Associated Oil q	50c	Dec. 24	Dec. 6
do extra	40c	Jan. 25	Dec. 6
Devonian Oil	20c	Dec. 20	Nov. 30
Marland Oil q	$1	Dec. 31	Dec. 18
Natt'l Transit q. s. s	25c	Dec. 15	Nov. 30
do extra	12½c	Dec. 15	Nov. 30
Phillips Pet. q	75c	Jan. 3	Dec. 15
Texas Co. q	75c	Dec. 30	Dec. 10
Texas Corp. initial	75c	Jan. 1	Dec. 10
Tide Water q	37½c	Dec. 31	Dec. 6
Shell Union q	35c	Dec. 31	Dec. 10
do extra	60	Dec. 31	Dec. 10

Cleveland Stock Market

	Nov. 26 Par	Bid	Asked	Last Sale
Canfield Oil Co	$100	.....	.. ..	110
do pfd	100	.....	.....	95
Fred G Clark Co	10	3⅛	4⅛	3⅝
National Refining Co	25	40⅝	40⅞	41
do pfd	100	130	132	132
Paragon Refining Co	25	7¼	7½	7⅛
do pfd	100	65	.....	70

xEx-dividend

Financial Notes

California Petroleum Corp.—$1,902,775 additional common stock, par $25 a share, and $12,000,000 12-year 5% convertible sinking fund gold debentures admitted to New York Stock Exchange. Listed stock now totals $49,703,225.

Union National Petroleum Co.—W. L. Stewart of Union Oil Co. of California, elected president. Union National was organized to develop 900,000 acres of concessions of Pantepec Oil Co. in Venezuela.

New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions week ended Nov. 26 Sales	First	High	Low	Last	Ch'ge
11½	2½	14½	4	$ 5	Amer. Maracaibo	40,300	6⅝	7	5⅞	6⅞	+ ⅛
8⅜	5	8⅜	5¾	$10	Arkansas Nat. Gas.	100	7¾	7¾	7¾	7¾	+ ⅛
.....	.....	19⅜	14⅝	N.P.	Beacon Oil	10,000	17	18½	16¾	18⅜	+1⅜
47½	38	.....	.....	$25	British-American	400	70	70	69¼	69¼	— ¾
10¼	2¾	23⅝	9¼	25c	Carib. Syndicate	49,200	22⅝	*23⅝	20¾	23¼	+1
43	35	49⅛	37½	$20	Cities Service	11,500	48⅝	*49⅛	48⅝	49⅛	+ ½
85⅝	80¼	92½	82¾	100	do pfd	2,200	92¼	*92½	92¼	92½	+ ¼
8	7¼	8¼	7⅜	10	do pfd. B	300	8¼	8¼	8¼	8¼	0
21¾	17½	24½	19	10	do bankers' sh	200	24½	*24½	24½	24½	+ ¼
2¾	.60	3½	1¾	N.P.	Colombia Syndicate	7,700	2 3/16	2⅜	2⅛	2 1/16	— 1/16
15	8¼	16	10	N.P.	Creole Syndicate	37,400	13½	14	13¼	13⅞	+ ⅜
12¼	5	7⅜	1⅜	N.P.	Crown Central	700	1⅝	2	1⅝	2	+ ¼
7	2	4	1 1/16	N.P.	Derby Oil & Ref	.....	.....	.....	.....	.....	.....
27	10½	19	13	N.P.	do pfd	.....	.....	.....	.....	.....	.....
.....	.....	2¼	.60	.....	Euclid Oil	9,400	93	95	81	85	—4
6	1⅜	7½	2¼	N.P.	Gibson Oil	10,400	3⅛	3⅜	3	3⅛	+ ⅛
3¾	1⅜	2	.63	N.P.	Gilliland v.t.c	.....	.....	.....	.....	.....	.....
98¼	63½	95	82	$25	Gulf Oil Corp	900	89⅝	90	89½	90	0
5⅞	2¼	4	1	N.P.	Kirby Petroleum	200	1¾	1¾	1¾	1¾	— ⅛
13	6	12¼	5¾	N.P.	Leonard Oil & Dev	2,400	7½	7½	7½	7½	+ ¼
25⅞	18	25¾	20	N.P.	Lion Oil Refining	1,700	23	23⅝	22¾	23¼	0
.....	.....	46	31½	$25	Lone Star Gas	1,200	43⅞	44¼	43½	44⅛	+ ¼
4¼	1¾	3⅜	1½	N.P.	Marland of Mexico	300	2¼	2¼	2¼	2¼	0
5¾	.56	5½	1⅞	$10	Mexican-Panuco	26,200	2	2⅝	2	2⅝	+ ⅛
2	1	1¾	1¼	1	Mountain & Gulf	300	1⅜	1⅜	1⅜	1⅜	0
26¼	18¾	26	22½	10	Mountain Prod	3,600	25	25⅝	25	25⅝	+ ½
6¾	3⅝	6¾	5	5	New Bradford	800	5⅜	5⅜	† 5	5⅜	+ ⅛
24¾	16¼	11¾	2	10	New England Fuel	.....	.....	.....	.....	.....	.....
19⅜	6¼	17	9⅛	1	New Mex. & Ariz	600	10	10	9⅞	10	+ ⅛
12½	8¼	17	8	25	New York Oil	100	10½	10½	10½	10½	+ ⅛
37	14	36	34¼	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
.....	.....	9⅞	6	....	Pandem	6,200	8⅛	8¾	8⅛	8¾	+ ½
2½	.90	2¾	.20	N.P.	Peer Oil Corp	.....	.....	.....	.....	.....	.....
28¼	16	22¾	12	$10	Pennok Oil	200	14⅛	14⅛	14⅛	14⅛	+ ⅛
44½	16	38	14⅜	25	Red Bank Oil	.....	.....	.....	.....	.....	.....
33½	19	28¾	12	N.P.	Reiter-Foster	16,400	16	18¾	15⅝	18½	+2¾
.....	.....	27½	22	$25	Richfield Oil w.i	.....	.....	.....	.....	.....	.....
9½	3½	7½	4½	N.P.	Ryan Consolidated	100	4¾	4¾	4¾	4¾	— ⅛
9¾	6⅛	10	7½	$10	Salt Creek Cons	600	7⅞	7⅞	7⅞	7⅞	— ⅛
35	24	36	26⅞	10	Salt Creek Prod	4,200	30¼	31¼	30¼	31¼	+1
3⅞	1	4	1⅜	5	Savoy Oil	300	3	3	3	3	— ⅛
13¾	9	27	7⅜	10	Tidal Osage	3,800	21	23	19⅝	19⅝	—1⅜
10⅞	8	25¾	8¼	10	do non-voting	8,300	18	21¼	18	18	— ⅞
.....	.....	27	20⅞	N.P.	Tide Water Assoc	7,500	22⅝	22⅞	22	22¼	— ⅜
.....	.....	99¼	95½	100	do pfd	3,400	95¾	96¾	95½	96¾	+ ⅞
4⅞	1¾	8	4¼	5	Venezuelan Pet	5,500	6⅞	7	6⅝	6¾	— ⅛
.....	.....	29¾	23½	N.P.	Warner-Quinlan	300	25¾	27	25¾	26⅝	+ ⅝
31¼	22½	36⅜	22	N.P.	Wilcox O. & G. new	2,000	26½	27½	26½	27	+1
7	3⅞	9½	4⅜	$ 1	Woodley Petroleum	600	7¼	7¾	6¾	6¾	—1⅛

*New High †New Low xEx-Dividend.

Gasoline Is Still Easy At Atlantic Ports

By Special Correspondent

NEW YORK, Nov. 29.—Although it costs 11¼ cents a gallon to lay California U. S. Motor gasoline down on the Atlantic seaboard in cargo lots, it was reported from several sources that business had been done at 11¼ cents a gallon in tank cars. The undertone of the gasoline market was easier regardless of the increased consumption due to the Thanksgiving holiday.

There has been a persistent rumor that at least one large California refiner is offering U. S. Motor there at 8 to 8¼ cents a gallon instead of the 8½-cent price which has been generally quoted. The freight rate from the Pacific coast to the Atlantic seaboard is now $1.10 a barrel or 2¾ cents a gallon, which added to the 8½ cent price on the Coast brings the delivered New York cost to 11¼ cents a gallon.

Considerable California gasoline is still finding its way into Atlantic Seaboard markets regardless of the report of a slump in the movement. Stocks are accumulating as jobbers are buying hand-to-mouth. Export buying has not been large enough to relieve the situation to any extent. Upstate and Pennsylvania buyers are still keeping in close contact with the bulk gasoline market but are buying conservatively.

Most New York harbor refiners are asking 11½ cents a gallon for U. S. Motor gasoline in tank cars at refineries and 12½ cents a gallon delivered. There have been rumors of an impending reduction in gasoline tank wagon prices all along the seaboard but nothing definite developed.

	Nov. 29	Nov. 22
Calif., U. S. Motor, cargo lots, Atlantic seaboard	11¼	11¼
Calif., U. S. Motor, tankcars, Atlantic seaboard terminals	11½	11½
Calif., U. S. Motor, delivered tankcars, Atlantic seaboard trade	12¼	12¼
U. S. Motor, Bayonne refineries, tankcars	11½	11½
U. S. Motor, delivered from seaboard refineries, tankcars	12½	12½

Pan-American Western Earnings

NEW YORK, Nov. 27.—Pan American Western Petroleum Co. and subsidiaries reports net profits of $448,930 for the third quarter before federal taxes. Net for the first nine months after estimated federal taxes and all other charges amounted to $2,076,048. Gross sales in the nine months totaled $25,815,870 and in the third quarter $9,393,111.

Gibson Oil Corp.—Edward Hoover elected a director at annual meeting to succeed E. F. Randolph. Other directors and officers reelected. Gibson's production is said to be about 6000 barrels a day. Phillips Petroleum Co. is drilling 32 wells on Gibson acreage in the Texas Panhandle. The company itself has completed 17 wells in the Laredo field, five in Brown county and one in Wheeler county, Texas.

THE OIL INDUSTRY EXCHANGE

Market Section

Positions Wanted

YOUNG MAN WITH FIFTEEN YEARS EXPERIENCE buying and selling petroleum products, constructing and managing filling stations, and bulk sales, desires connection with substantial oil company, willing to start at moderate salary.

Box 731

ACCOUNTING EXECUTIVE with sales experience. Eleven years in sales organization of large oil company. Thoroly experienced in office management, station and service station operation, accounting and salesmanship. Age 33, married, available January first. Connection desired in Illinois or Middle West. Box 736.

DIVISION MANAGER desires new connection. Have thorough knowledge of handling bulk stations, filling stations, salesmen both wholesale and retail, and compounding plant. Prefer South or West but will go anywhere. Best of references.

Box 739

Situations Open

MANAGER-SALESMAN WANTED

by Oil Jobber in city of 25,000, richest county New York. Must have pep and ability to build up lube oil business and be responsible for success of same. Salary according to results. State particulars of self.

Box 738

ASSISTANT MANAGER WANTED

for an eastern refinery. Must be technical graduate with several years experience in refining and at present employed. Give full particulars.

Address Box 740

INDUSTRIAL LUBRICATION ENGINEER

A major oil company has an opportunity for a wide-awake, experienced lubrication engineer in their industrial oil division for New Jersey and Pennsylvania territories. Answer by letter giving full details to

Lubricating Engineer,
342 Madison Ave.
New York City

TWO SALESMEN

Wanted by large refiner to cover jobbing trade out of Philadelphia. Salary and good opportunity for advancement.

Box 729

Advertisers having box numbers should be addressed in care of National Petroleum News, 817 Huron road, Cleveland, Ohio, unless otherwise specified.

Business Opportunities

INVENTORS—Am in touch with hundreds of moneyed men and manufacturers who wish to buy good inventions. Write Hartley, 38 Court St., Bangor, Maine.

Equipment Wanted

WAX PRESS WANTED

Good 48 in.—300 plate wax press. Anyone having same to sell, address Box 733, care National Petroleum News.

For Sale

NEW YORK WATERFRONT PROPERTY FOR SALE for the storage of gasoline and all other petroleum products. 1000 feet from New York City line; one-half cent freight from New York Harbor Terminals.
Address Westchester Terminal Company, Inc. 707 S. Columbus Ave., Mount Vernon, N. Y.

TESTING INSTRUMENTS FOR SALE

One Tag. A. S. T. M. Cleveland Open tester for determining Flash & Fire Points, complete with thermometers. No. 56000 ..... $10
One No. 55400 Saybolt Standard Universal Viscosimeter complete with thermometers $50

Write or Wire Paramount Oil Co.,
Yakima, Washington

GOOD PAYING OIL JOBBING BUSINESS FOR SALE. Town of five thousand. Will invoice around twenty thousand dollars, gallonage around three hundred and fifty thousand. Bulk plant aand filling station.

Box 737

Economy in Production

Do you realize how many hundreds of thousands of dollars are lost annually by accumulation of used engines, drilling equipment, etc. in refineries, warehouses or on leases?

Don't let your money be tied up in anything you don't need. Look over the equipment you're not using and write us about it. We'll sell it to some of our 14,500 readers.

Miscellaneous

WHAT IT COSTS

For "Position Wanted" advertisements—5 cents per word. Minimum cost $1.00. All other classified advertising—10 cents per word. Minimum cost $3.00. Advertisements set in special type or with border—$4.00 per column inch. Copy must reach us not later than Friday preceding date of issue.

All advertisements carried on this page are payable in advance.

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